REPORT ON TRANSPARENCY

TO THE HONOURABLE DR. ERIC HOSKINS

Minister of Health and Long-Term Care

ROYAL COLLEGE OF DENTAL SURGEONS OF ONTARIO

Thursday, November 13, 2014

Royal College of
Dental Surgeons of Ontario

Ensuring Continued Trust

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TRANSPARENCY: CORE VALUES

" .... as a regulator we can never be complacent. We can never avoid challenges by resorting to taking the easy way out. We need to continue to be a model of openness and transparency. We need to constantly refocus and recommit to putting the patient first."

Dr. Peter Trainor, RCDSO President
Dispatch magazine
February/March 2013

The Royal College of Dental Surgeons of Ontario is totally committed to using its governing legislation, the Regulated Health Professions Act (RHPA), to protect the public and the public's interest. Indeed, RCDSO continues to take action above and beyond the basic legislative requirements to ensure that we are doing everything reasonably possible to protect the public and earn the public's trust.

For some time now, transparency has been at the forefront of initiatives here at RCDSO. Our commitment to transparency permeates the operations of the College. In fact, it is one of our core values.

In 2008, our governing Council unanimously agreed to seven values that would underlie all future decision-making at the College. These values are: trust, transparency, accountability, equality, accessibility, fairness and responsiveness (Appendix 1). The College makes every effort to translate these values into concrete and meaningful action.

This philosophical framework was developed by a special working group set up under the College's Patient Relations Committee. This working group was composed of Mohammed Brihimi, public member of Council; Anne Coghlan, Executive Director and Chief Executive Officer of the College of Nurses of Ontario; Irwin Fefergrad, RCDSO Registrar; Dr. Hartley Kestenberg, a dentist member of the Executive Committee; Dr. Doug Smith, a former Council member; Dr. Cam Witmer, RCDSO immediate past president. The working group chair was Dr. Peter Trainor, then chair of the Patient Relations Committee.

TRANSPARENCY: THE PUBLIC REGISTER

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Over the last year and a half, the College has acted proactively to increase the amount of detailed information posted to our public register. Our goal is to enhance the information available to the public to make informed decisions about their choice of health care practitioners.

The public register is updated for member's conduct information within 24 hours of a change. The changes posted within 24 hours include:

- referrals of allegations of Professional Misconduct to the Discipline Committee;
- referrals for incapacity proceedings to the Fitness to Practise Committee;
- the outcome of discipline hearings where a finding of professional misconduct is made;
- suspensions in effect;
- terms/conditions/limitations in effect including those ordered by a panel and those agreed to by way of voluntary undertakings arising through the complaints, investigation and fitness to practise processes;
- voluntary undertaking/agreements to withdraw or resign from practice;
- interim orders made by a panel of the ICR Committee pursuant to section 37 or section 62 of the Health Professions Procedural Code of the RHPA;
- notation of deficiencies found in facility inspections for those with sedation permits and/or CT scanners, within 24 hours of receipt by the College of the inspector's report.

At our own initiative to protect the public, in November 2013 Council passed changes that permit the College to post on the public register a summary of each deficiency found during an inspection of facilities holding a facility permit for the installation and operation of dental CT scanners or for the administration of sedation and/or general anesthesia. These amendments went into effect January 6, 2014.

At its June 12, 2014 meeting, Council approved additional proposed by-law amendments respecting the use of sedation in a dental office to again expand the information on the public register. The intention is to more clearly define the parties responsible for the deficiencies. The information appears in the register entry of either the dentist who is the facility permit holder or the member authorized to administer depending on the specific circumstances of each inspection. These amendments went into effect on August 1, 2014.

This is an area of significant impact on the safety of the public, as we now issue close to 1,300 facility permits annually for sedation and CT scans in the following categories:

- 744 permits for oral moderate sedation, parenteral conscious sedation, and deep sedation and/or general anesthesia;
- 377 permits for sedation and/or general anesthesia to be delivered by a visiting provider;
- 138 permits for dentoalveolar or craniofacial CT scanners.

Starting in January 2015, facility permit holders are required to complete an attestation that they are in compliance with the requirements.

The by-law changes also give the Registrar the power to deal with situations where there is a risk of harm to the public. Specifically, where deficiencies are identified as part of an inspection, the Registrar may immediately rescind, refuse to renew, or place conditions on the member's facility permit.

These changes came to Council as recommendations of an internal transparency working group composed of the Executive Committee and the chairs of the following committees: Patient Relations, Discipline, Legal and Legislation, and Inquiries, Complaints and Reports.

Proposed further by-law changes to increase transparency were already underway at this College, as a result of our participation in the Advisory Group for Regulatory Excellence (AGRE).

At Council in June 2014, direction was given to draft by-laws to add further information to the public register, including:

- date of referral to discipline
- Discipline Committee status
- full notice of hearing
- criminal findings of guilt
- cautions
- Specified Continuing Education and Remediation Programs (SCERPS)

While the date of referral to discipline, the Discipline Committee status and the full notice of hearing are currently available to the public upon request, the by-law amendments will make the information more easily accessible by listing it on the public register. Cautions, SCERPS and relevant criminal convictions will be new additions to the public register in order in further the transparency principles drafted by AGRE and adopted by our Council.

The original timing was for these amendments to be approved in principle by Council in November 2014, then circulated to membership and stakeholders, and to receive final approval in May 2015.

However, in light of the Minister's letter of October 2014, all timelines have been expedited. The Executive Committee directed that the proposed changes be circulated to members and stakeholders in advance of the November Council meeting. These were sent out and posted on the College's website on October 10, 2014.

In our initial letter of response to the Minister on October 6, 2014, the College asked for abridgement of the 60-day circulation period in order to bring the proposed amendments forward for final approval at the Council meeting on November 13, 2014. Since the exemption was not granted, a special Council meeting will be held in mid-December to approve these by-law amendments.

In addition, although it is not required by the RHPA nor mandated elsewhere, the RCDSO vigorously investigates and prosecutes persons suspected of practising dentistry illegally in the province of Ontario. The College, at its own expense, takes steps in Superior Court to obtain injunctions against these individuals and then posts these court results and the person's name on the RCDSO website (Appendix 2).

TRANSPARENCY: INSPECTIONS

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The College currently operates two inspection programs: the first relates to members seeking authorization to operate dental CT scanners, the second relates to members seeking authorization to provide sedation and general anesthesia services.

Any facility where a dentist wishes to install and operate a dental CT scanner is required to apply for and be issued a facility permit. The College ensures by means of an initial inspection that a facility where a dental CT scanner is installed meets the requirements outlined in the standard of practice (Appendix 3). The College then inspects such facilities and reviews patient records on a regular basis to ensure that every facility and practitioner that prescribes, orders and takes dental CT scans remains in compliance with the applicable standards.

Likewise, every dental facility providing sedation and/or general anesthesia services must have a facility permit issued by the College and every practitioner who administers a level of sedation governed by the College is required to have their training and qualifications approved by the College prior to being able to administer sedation and/or general anesthesia. The College inspects such facilities and reviews patient records on a regular basis, to ensure that every facility and practitioner that administers sedation and/or general anesthesia remains in compliance.

The applicable standards and by-laws and the checklists employed by the College when conducting inspections are available on the College's website for public review (Appendix 4). The conditions being verified by the College during inspections are completely transparent to both members and the public.

Recent amendments to the College's by-laws in November 2013 and June 2014 increased the amount of information posted on the public register with respect to the results of facility inspections. As a result of these amendments, the College currently posts a summary of each deficiency found during any inspection of a member's practice related to either the installation and operation of dental CT scanners or the administration of sedation and/or general anesthesia (Appendix 5).

To ensure the safety of the public, where any deficiencies are identified as part of an inspection, the Registrar may immediately rescind, refuse to renew, or place conditions on the member's facility permit. In addition, the Registrar may exercise his authority under s.75(1)(a) of the Code to conduct an investigation of the member's practice. This additional investigation may result in further action being taken against the member by the Inquiries, Complaints, and Reports Committee. Depending on the outcome of such investigation, these results may in turn be posted on the public register.

To encourage the prompt rectification of any deficiencies identified during an inspection, the summary of deficiencies is removed from the public register once the College is satisfied that the deficiencies have been properly corrected; however, a record of the inspection results, including any identified deficiencies, remains on the member's permanent file with the College.

DISCLOSURE OF RESULTS OF INSPECTIONS

The Ministry has identified the following specific disclosure requirements for results of inspections. It is the College's view that it either currently meets or soon will meet all of these disclosure requirements.

The purpose of the inspection

Although not specifically contemplated by the applicable provisions of the College's by-laws, the general purpose of the inspection (e.g. initial application, routine reinspection, etc.) has recently been included in the overview of information related to inspection protocols posted on the College's website.

The College is working to review its internal protocols in this regard and will have additional information posted as part of its summary of any identified deficiencies going forward.

The reasons for those results

The College will only issue or renew a facility permit, either for the installation and operation of dental CT scanners or for the administration of sedation and/or general anesthesia, where the facility is found to be in compliance with the standards of practice.

Where a finding of non-compliance is made during an inspection, the identified deficiencies and any conditions imposed by the College on the member's practice are posted on the public register. The results of the inspection are therefore readily accessible.

The College is of the view that this requirement is currently being met.

The reasons for those results

The reasons for the results of inspections are evident in the nature of the deficiencies identified. For example, if it was found during an inspection that a member lacked a necessary piece of emergency equipment or a required emergency drug, this fact would be clearly disclosed on the public register. Due to the specific nature of the College's inspection protocols, which set out clearly enumerated requirements and conditions to be met, the reasons for the results of an inspection are immediately apparent.

The College is of the view that this requirement is currently being met.

Any deficiencies identified by the inspectors

As outlined above, a summary of any deficiencies identified by the inspector is posted on the public register. This information remains on the public register until the deficiency is corrected to the satisfaction of the College, but remains on the member's permanent record.

The College is of the view that this requirement is currently being met.

Any conditions that apply

Any terms, conditions, or limitations imposed by the Registrar as a result of deficiencies identified during an inspection are posted on the public register with respect to the applicable member for the duration of their application.

The College is of the view that this requirement is currently being met.

TRANSPARENCY: INQUIRIES, COMPLAINTS AND REPORTS COMMITTEE

The complaints process is accessible to all persons who wish to file a complaint. This includes, but is not limited to patients, former patients, office staff, former staff, insurance companies, government agencies, other dentists and members of the public.

Information about how to access the College's complaints process is available to the public through a variety of access points:

- a complaints brochure called "What Should I Do if I Have a Problem with my Dentist" available as an electronic file or in print (Appendix 6);
- College website www.rcdso.org (Appendix 7);
- a three-minute video called "What Should I Do if I Have a Problem with my Dentist" on the College's YouTube channel explaining our complaints process to be included on the website by the end of November (Appendix 8);
- a three minute video called "About the RCDSO" on the College's YouTube channel explaining who the College is and our mandate under the Regulated Health Professions Act to be included on the website by the end of November (Appendix 9);
- College staff who answer telephone, email and written inquiries.

As is required by legislation, complaints are accepted in writing, by email, recorded as audio or film, on computer disc/storage media. If a complainant has a disability and requires accommodation or assistance filing a complaint, College staff will assist the complainant in getting the complaint into written form.

Complaints received in a language other than English are translated by a translation service at the expense of the College.

A new online submission form for complaints on the College's website available in December 2014 will further reduce barriers and make our process easily accessible.

The RCDSO is one of the few Colleges that provides full transparency to both parties, complainant and dentist, at the complaints stage.

On an ongoing basis throughout the course of the investigation of complaints, all documents obtained by the College are disclosed to both the complainant and the member. In addition, everything submitted by one party is disclosed to the other party and they are given an opportunity to respond. This comprehensive disclosure to both parties includes a copy of:

- letters of complaint and response submitted by the parties;
- notes of interviews;
- expert reports;
- dental records including the records of the member complained of and any other dental/medical records obtained with the consent of the patient;
- financial and insurance records;
- all other documents obtained;
- the complete record of investigation that will be reviewed by the panel is provided to the parties at the end of the investigation.

Both parties are given the ongoing opportunity to comment on these documents during the course of the investigation.

At the complaints stage, this extensive disclosure process is not required by the RHPA nor mandated elsewhere. However, it is the policy of this College as this level of disclosure offers the highest level of procedural fairness and transparency to both parties.

As required, both parties get a copy of the final decision. This College typically mails out the decision the same day as the panel meeting.

RCDSO disclosure was praised by the chair of the Health Professions Appeal and Review Board (HPARB) Janice Vauthier at our Council meeting in June 2014. HPARB is the adjudicative body that reviews on appeal decisions from the Inquiries, Complaints and Reports Committee and the Registration Committee.

At that meeting, Ms. Vauthier described this College as "a shining example of a College getting it right." She went on to say that she believes that our whole College, including the Registrar, "are very good at demonstrating, at least to our Board, that you take the mission and mandate of regulating the profession of dentistry in the public interest to heart." (Appendix 10)

In the investigation of a member in relation to breaches of the terms of a sedation and anesthesia facility permit, or the standards of practice in relation to sedation and anesthesia, where our member is a dual registrant of this College and of the College of Physicians and Surgeons of Ontario (CPSO), or where the facility employs the services of a member of the CPSO to provide sedation and anesthesia services, the College will share information and investigation results with CPSO, under the authority of s.36 of the RHPA, in the interest of public protection and patient safety.

RCDSO considers that its obligation to protect the public goes far beyond the RHPA. For example, RCDSO works collaboratively with the police where a dentist is suspected of committing a criminal offence, most frequently in the area of sexual or drug violations.

For cases involving possible health/transmission risks for patients, even before there has been a hearing or a committee determination, if the Medical Officer of Health or a public health official requests a list of patient names in order to contact patients, the College has facilitated the sharing of all the relevant information.

TRANSPARENCY: INFECTION PREVENTION AND CONTROL

Infection prevention and control are an important part of safe patient care. The College updated and published comprehensive Guidelines on Infection Prevention and Control in the Dental Office in 2010 which consolidate recommendations from government and other agencies, regulatory bodies and professional associations. The Guidelines, available on our website, present best practices that reflect the best evidence and expert opinion at the time of publication (Appendix 11).

The Guidelines address:

- principles of infection prevention and control;
- patient safety;
- oral health care workers responsibilities and safety;
- cleaning, disinfection and sterilization of patient care items;
- office cleaning, housekeeping and management of waste,
- equipment and area specific practice guidelines;
- general and surgical aseptic technique.

Members are advised that this document may be used by the College or other bodies in determining whether appropriate standards of practice and professional responsibilities have been maintained. This includes matters related to the possible transmission of blood-borne viruses, such as hepatitis B, hepatitis C and HIV.

In particular, the Guidelines state that it is important that all oral health care workers know their personal immunization status and ensure that it is up-to-date. Also, under the Guidelines, all oral health-care workers who may perform exposure-prone procedures have an ethical obligation to know their serologic status for blood-borne viruses. If infected, dentists should seek guidance from the College with respect to the potential for transmission of their infection to their patients.

The College examined the risk of transmission of blood-borne viral infections from dentists to patients. In October 2012, the College received the report of a national working group on "The Dentist with Blood-Borne Viral Infection: What Are the Risks to Patients and What Is an Appropriate Approach to the Dentist?" (Appendix 12). The College then pursued this issue by striking a working group to provide recommendations for Ontario.

Based on the recommendations of both working groups, the College has reached out to its members to educate them on several themes:

- encouragement to dentists to know their serological status and to get tested;
- reassurance to members that there is good treatment available for infection with blood-borne viruses and these conditions are no longer career-ending;
- awareness that the College has a confidential process for assisting members who self-report.

DEALING WITH INFORMATION SUPPLIED BY PUBLIC HEALTH AUTHORITIES

In cases where information comes to light involving potential patient risk due to infection control issues, our Registrar will use emergency appointments under s.75(2) of the Code. This has been done four times in the last three years.

First example: In November 2012, the Registrar was contacted after business hours on a Friday afternoon by a public health unit that had serious concerns about the infection control practices at a dental office. On Saturday, the Registrar used his emergency powers under s.75(2) and appointed an investigator, who travelled to the town where the office was located on Sunday. First thing on Monday morning, the investigator attended at the dental office and worked with the dentist to immediately rectify the concerns so that both the public health unit and the ICR Committee were satisfied that any risk to the public had been removed. The Medical Officer of Health wrote the College a letter of appreciation for its speedy response to a threat to the public's safety (Appendix 13).

Second Example: In September 2014, the Registrar was contacted by telephone at 8:37 a.m. on a Tuesday by a public health unit in northern Ontario that had received complaints about the hygiene practices at a dental office. The Registrar returned the call at 9:15 a.m. and immediately used his emergency powers under s.75(2) to appoint an investigator. The investigator then began telephone interviews with patients the same day. The following day he arrived unannounced at the dental practice, accompanied by a representative from the public health unit. A full assessment of the practice conditions, practices and protocols was conducted, resulting in best practice advice being given to the dentist. Detailed reports from both the College investigator and the public health investigator were completed and provided to the Inquires, Complaints and Reports Committee.

TRANSPARENCY: DISCIPLINE COMMITTEE

As required by legislation, all Discipline Committee hearings are open to the public and to the media.

This College was the first health care regulatory college to have reprimands ordered by a panel of the Discipline Committee delivered in an open hearing.

The main page of the RCDSO website has a quick link to both upcoming discipline hearings with dates and to the archive of published discipline summaries dating back to 2003 (Appendix 14).

Where there has been a finding of professional misconduct, the outcome of the hearings are published on the public register under the member's name, published with the member's name and address in our membership magazine, archived on our website, and are referenced in the annual report.

The public register is updated to show results of discipline hearings, suspensions in effect or terms, conditions and limitations in effect within 24 hours of a change.

To improve transparency for patients whose information was obtained in an investigation under s.75(1)(a) and who may not be aware that there were problems with the member's standard of treatment, the College Council passed a policy in 2012 that allows the Discipline Committee, in appropriate circumstances, to direct the Registrar to notify these patients of the panel's finding of professional misconduct (Appendix 15).

TRANSPARENCY: REGISTRATION REQUIREMENTS & ASSESSMENTS

Assessment of qualifications, academic credentials, competencies and practical experience is carried out at a national level by the National Dental Examining Board (NDEB). Completion of the NDEB examinations is a registration requirement across the country, regardless of where the person was trained. All this information and more are clearly outlined on both the College website and on the NDEB website.

RCDSO was recently praised by the Federal Foreign Qualification Recognition Working Group of Citizenship and Immigration Canada regarding its commitment to continuous improvement, client responsiveness and a proactive philosophy regarding its registration practices (Appendix 16). The acknowledgement was for:

> ...having a practice of continuous improvement attitude and championing the cause at senior levels of the organization. It is important to note that the RCDSO constantly reviews their information sheets based on its interactions with international applicants. They are always looking to provide the most accurate and up-to-date information to applicants and will use their communications with them to hone the information. That is, if they find applicants do not understand a part of the process, or if the same questions or errors keep coming up, they will change the information accordingly. Client responsiveness appears to be one of the key factors in how the RCDSO operates.
>
> One factor that differentiates this from good customer service or even an immigrant-centric philosophy is the fact that pre-arrivals issues are put on the organization's agenda, are addressed quickly, and are championed by senior management within the organization.

APPLICANT RESOURCES

Applicants can access:

- Our extensive registration material through the website or have personal contact by telephone, email or by appointment.

- We have had user friendly information sheets for over 28 years that list and describe the registration requirements in detail. Requirements are given in plain language in step-by-step fashion, along with third party links, registration fees, and a lengthy question and answer section. They are updated and improved on a continuous basis. These forms are on the College's website and sent out by email upon request or mailed by post.

- An Ontario Immigration approved Career Map is available on the RCDSO website and various government websites. The Career Map includes many links including review and preparatory courses for the Equivalency Process offered by Canadian Faculties of Dentistry, university sites, an NDEB link, plus government sites such as those containing labour market information and Ontario's Job Futures. In 2012, a Federal Immigration Fact Sheet was prepared for and approved by Citizenship and Immigration Canada.

- Information about the degree completion programs and the national examinations including exam blueprints, exam sample questions, suggested reading, examination dates, fees etc. are available on the NDEB's website. There are links to this material from our website. The NDEB site contains a self-assessment tool that applicants can access from anywhere in the world. It allows them to gauge how their level of training might compare to Canadian standards and gives insight respecting their chances of entering the bridging programs. Furthermore, the NDEB website also lists the "Competencies for the Beginning Dental Practitioner in Canada" which is another useful tool for candidates to examine and compare their training to that of Canadian graduates.

- A new document was developed in 2013 as a separate, stand-alone section of our website. It addresses many of the misconceptions that the internationally trained have expressed about dentistry's assessment protocols. Entitled "How is Training Completed Outside of Canada Assessed?" it honestly, in a clear and transparent manner, explains dentistry's/the NDEB's methods and reasons for our protocols. It provides insight on immigration issues, appeals, the science behind assessments and validation and generally addresses the main questions individuals have raised.

- In 2010 the College's Ethics and Jurisprudence course moved to an on-line format. It provides a broad orientation to the profession and to Ontario's regulations respecting the practice of the profession.

- Our website lists both our annual reports to the Office of the Fairness Commissioner (OFC) as well as other audits and reviews they have conducted.

RESULTS OF REVIEW BY THE OFFICE OF THE FAIRNESS COMMISSIONER OF ONTARIO

The best example respecting our level of transparency in registration practices can be shown in the 2013 review conducted by the OFC (Appendix 17). The College was found to be exemplary with a number of commendable practices.

This review was totally focused on this subject and included both an investigation of our internal processes, in addition to the external ones. The review headings included:

Internal openness: Registration staff and decision makers can easily see what actions must be taken to complete the registration process, why these actions are taken and what results from these actions.

External openness: Applicants can easily see what actions must be taken to complete the registration process, why these actions are taken and what results from these actions.

Access and clarity of information: Registration information is easily available, complete, accurate and easy to understand.

Clarity of communication with applicants: The regulator communicates well with applicants throughout the registration process. Applicants have all relevant information at the time and in the way needed to take actions appropriate to their individual circumstances.

Access to Third Party information: Applicants have access to information about the role and requirements of any third parties involved in the assessment process. This facilitates a clear and complete understanding of how the registration process operates.

Clarity of Timelines: Applicants have clear information about all timelines related to the registration process. This information is critical to understanding how the application process operates.

Open Decision Making: Applicants understand the reasons for all decisions taken during the registration process.

Within each of these headings we were asked multiple, specific questions and had to provide proof of compliance.

The below links highlight information available from the RCDSO website with regard to our registration practices.

General Information Sheet

http://www.rcdso.org/Assets/DOCUMENTS/Registration/Information_Sheets/RCDSO_General_Info_Sheet.pdf

Career Map

http://www.ontarioimmigration.ca/OI/en/working/OI_HOW_WORK_DENTIST_CM.html

How is Training Completed Outside of Canada Assessed? A detailed explanation for the internationally trained

http://www.rcdso.org/Assets/DOCUMENTS/Registration/Internationally_Trained/RCDSO_Assessing_Training_FAQ.pdf

Website page showing index of options

http://www.rcdso.org/ApplicantsInformationforInternationallyEducatedTrained

TRANSPARENCY: HEARING THE VOICE OF THE PUBLIC

PUBLIC CONSULTATIONS

On October 6, a new section of the College website went live to allow anyone in the province to sign up to receive notification by email of all of our consultations on proposed by-laws, guidelines, and standards of practice. Any input received is formally included in committees' deliberations (Appendix 18).

When making new, amending or revoking policies, by-laws and regulations, the College as a matter of course circulates proposed changes to a broad group of stakeholders and posts the information on our website (Appendix 19).

The College takes seriously the input from the public and other stakeholders in carrying out its regulatory functions. All feedback received as part of consultations is formally reviewed by the applicable committee and/or Council as part of its deliberations. For example, the College's Legal and Legislation Committee and/or Executive Committee regularly reviews feedback from all stakeholders, including members of the public and the profession, regarding proposed regulation or by-law amendments. This feedback helps to shape the committee's recommendations to Council.

COMMUNITY CONSULTATION

The College Council agreed at its June 2014 meeting to establish a Community Consultation Group. This group will consist of up to 15 members of the general public. While not a decision-making body, the group formalizes yet another avenue for consumer and community perspectives on issues relevant to self-regulation in the public's interest to come to the attention of the College's decision-makers. This innovative group should be constituted and operational in early 2015.

The College is covering all accommodation, travel and meal expenses for a minimum of two meetings a year. A call for interested applicants was advertised with a total of 26 ad placements in 12 provincial daily newspapers between October 16 and October 25 (Appendix 20).

We are not aware of any other health care regulator in the country who has created a similar opportunity for legitimizing consumer input.

OPEN COMMUNICATIONS WITH THE PUBLIC

Transparency is at the heart of all of our communications initiatives.

With the launch of our website more than 10 years ago, the College decided that the philosophical basis of the site would be that there is no differentiation between the information shared with our members and the information shared with the public.

To enhance the accessibility of our website, the full site is available on all platforms: smart phones, desktop and tablets.

The College by-laws, standards, guidelines and other practice information are posted publicly. Last year Council passed a motion to begin posting approved minutes of our Council meetings on our website. The dates/locations of our Council meetings are also on the website.

Annual reports that tell the story of the work of all the statutory committees are archived on our site, going back to 1999. All guidance to members is shared with the public. Copies of our quarterly membership magazine are archived on our site back to 1999.

At the end of November of this year, the College is launching a YouTube channel. Some of the first videos will include: what to do if you have a problem with your dentist, another for the public about the protection that they receive from our malpractice insurance program, and one about the College and how we work.

There is extensive information on our website about the role of Council and statutory committees. Each statutory committee is profiled with a brief description of its mandate and a list by name of its current members (Appendix 21).

Our practice advisory service with dedicated on staff dentists answer questions involving clinical, regulatory and ethical issues from both the public and members on a confidential basis.

TRANSPARENCY: EXTERNAL REVIEWS

MAINTAINING THE PUBLIC'S TRUST

Council after Council at this College has taken very seriously our responsibility to maintain the public's trust in our ability to work in their interests. We understand the irrevocable link between openness and public accountability.

There is no better example of this than our engagement of the Professional Standards Authority (PSA) for Health and Social Care in London, England to conduct an independent assessment of the College to benchmark our performance in relation to other regulators internationally.

The final report of the study was released in June 2013 by Harry Cayton, PSA's Chief Executive (Appendix 22). This quote from the first paragraph of the Executive Summary sums up the report:

> The Royal College of Dental Surgeons of Ontario is an effective regulator. It is strongly focused on patient safety and the public interest. It meets or exceeds all of the standards of good regulation... .

Throughout the report, there is reference to our "strong focus on public protection."

One area that received particular focus is the transparency of our organization and the accessibility of information to the public. Our public register was described as "informative, accessible to anybody and easily searchable" and "the design, extent of information and its easy availability on the website represents good practice." In fact, the report commends our website to regulators and others.

This recognition was very recently echoed by the Ontario Fairness Commissioner who, in the latest Fair Registration Practices Report on this College, rated RCDSO as having "commendable practices" in the area of transparency. The Commissioner particularly noted that our external assessment by PSA and Harry Cayton "demonstrates the RCDSO's openness towards ensuring public accountability."

CONCLUSION

RCDSO will not waver from its commitment to public accountability through transparency. This is central to everything that we do.

There is no better articulation of our values than the following quote taken from the column of College Registrar Irwin Fefergrad published in the November/December 2013 issue of Dispatch, our membership magazine:

> As we move forward, I am sure there will be many more challenges. But I don't think we can go far astray if we are guided by the profound statement made by one of the former Supreme Court of Canada Justices, the Honourable Mr. Justice Peter Cory, when he said: "Everything that prevents light from being shed only leads to darkness and suspicion."

Based on the submissions included in this report, the College believes that it is meeting or exceeding best practices for transparency in all aspects of the College's mandate. We appreciate the intense scrutiny of both the public and the media on this sensitive issue. The College remains committed to a process of continual review and improvement, and will continue to examine ways in which it can expand and improve upon its dedication to transparency in both principle and practice. If our College can be of any assistance, please do not hesitate to contact us directly.

Yours truly,

Dr. Peter Trainor
President

Irwin W. Fefergrad, C.S., B.A., B.C.L., LL.B
Registrar

APPENDICES

APPENDIX 1
RCDSO Code of Ethics

APPENDIX 2
Screenshot of RCDSO website, Illegal Practitioners

APPENDIX 3
RCDSO Standard of Practice: Dental CT Scanners

APPENDIX 4
RCDSO Standard of Practice: Use of Sedation and General Anesthesia and Dental Practice

APPENDIX 5
Screenshot of RCDSO Public Register, Summary of Deficiencies

APPENDIX 6
RCDSO Complaints Brochure, "What Should I Do if I Have a Problem with my Dentist?"

APPENDIX 7
Screenshot of RCDSO website, How to file a complaint

APPENDIX 8
RCDSO YouTube video storyboards on complaints process

APPENDIX 9
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Royal College of Dental Surgeons of Ontario

APPENDIX 1

CODE OF ETHICS

The dental profession holds a special place of trust within society. As a result, society extends opportunities and privileges to the profession that are not available to the public at large. In return, the profession makes a commitment that its members will adhere to high standards of clinical expertise and ethical conduct.

The ethical behaviour of dentists is one of the most important factors in the promotion of quality dental care and recognition of dentists as professionals.

Continued public trust in the dental profession and in the principle of profession-led self-regulation is dependent on the commitment of individual dentists to high standards of ethical conduct.

These principles are based on the core ethical values of integrity, fairness, beneficence, compassion and respect for patient autonomy.

THE PRINCIPLES

1. The paramount responsibility of a dentist is to the health and well-being of patients.
2. Be truthful, obey the law, and provide care with respect for human rights and dignity and without discrimination.
3. Commit to the highest level of professionalism by maintaining current competency.
4. Respect the right of patients to be cared for by the dentist of their choice.
5. Provide timely and competent care that is consistent with the standards of the profession.
6. Provide unbiased explanation of options with associated risks and costs, and obtain consent before proceeding with investigations or treatment.
7. Recognize limitations and refer patients to others more qualified when appropriate.
8. Make the well-being of patients the primary consideration when making referrals to other health-care workers.
9. Never overstate or embellish qualifications, including advertising or speech, that could mislead a reasonable person.
10. Maintain a safe and healthy office environment for both patients and staff.
11. Accept responsibility for the care provided by authorized dental personnel.
12. Only provide compromised or unconventional treatment with full disclosure and consent of patients.
13. Only make evaluative remarks about the work of others after making reasonable efforts to understand the prior treatment history of patients.
14. Maintain appropriate and dignified boundaries in the patient/dentist relationship.
15. Protect the confidentiality of the personal and health information of patients.

Schedule 5 to By-law No. 1 November 2004

CORE VALUES

Core values represent a guide for ethical behaviour for members of the Royal College of Dental Surgeons of Ontario and are the foundation from which the ethical principles are derived.

AUTONOMY
Understanding and respecting patients' rights to make informed decisions based on personal values and beliefs.

BENEFICENCE
Maximizing benefits and minimizing harm for the welfare of the patient.

COMPASSION
Acting with sympathy and kindness to all patients in alleviating their concerns and pain.

FAIRNESS
Treating all individuals, patients, colleagues and third parties in a just and equitable manner.

INTEGRITY
Being truthful, behaving with honour and decency and upholding professional standards.

ETHICAL BEHAVIOUR IS THE FOUNDATION OF THE PUBLIC'S CONTINUING TRUST IN THE EFFECTIVENESS OF SELF-REGULATION.

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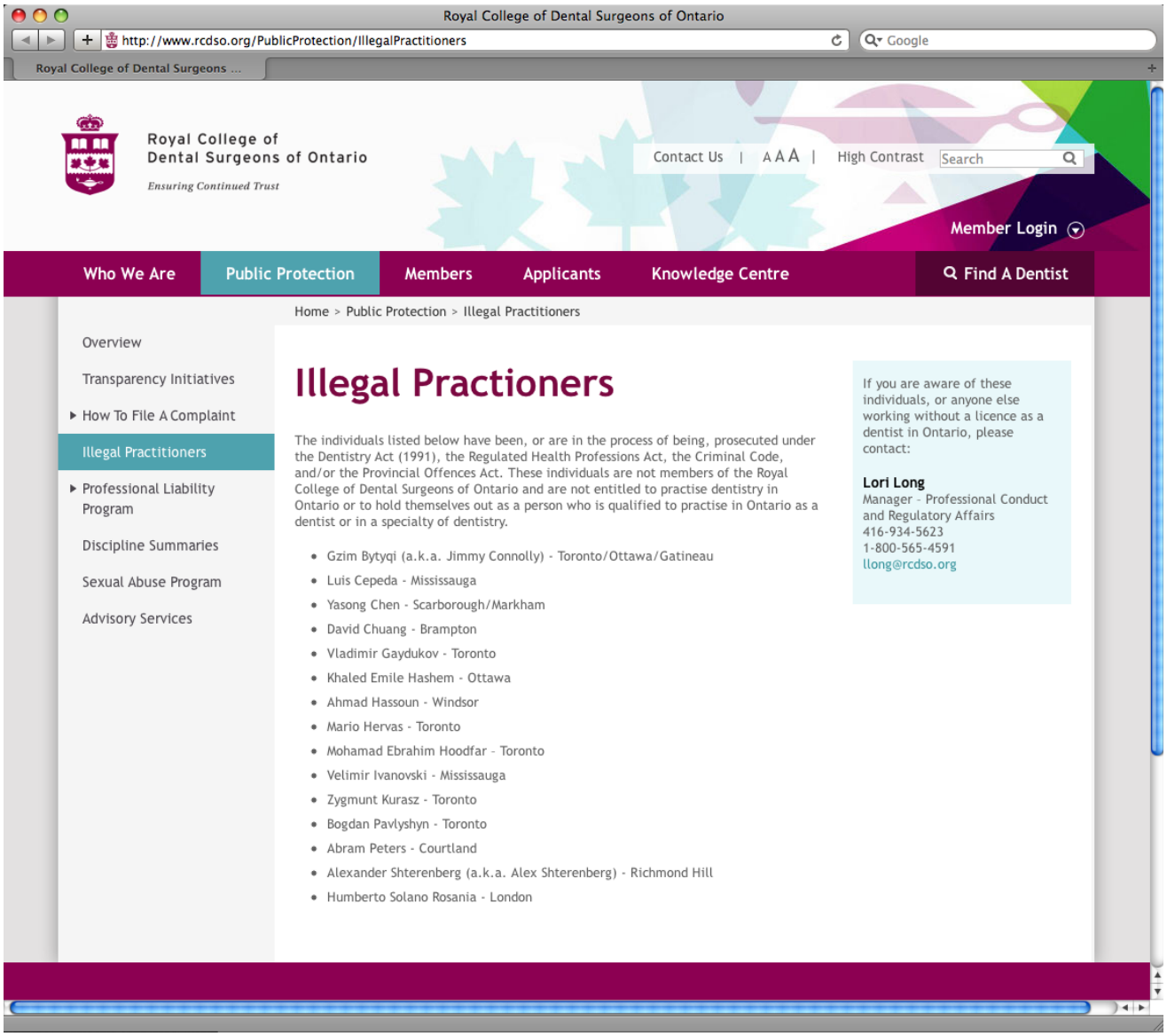
APPENDIX 2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http://www.rcdso.org/PublicProtection/IllegalPractitioners
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Knowledge Centre
Find A Dentist
Home > Public Protection > Illegal Practitioners
Overview
Transparency Initiatives
How To File A Complaint
Illegal Practitioners
Professional Liability Program
Discipline Summaries
Sexual Abuse Program
Advisory Services
Illegal Practioners
The individuals listed below have been, or are in the process of being, prosecuted under the Dentistry Act (1991), the Regulated Health Professions Act, the Criminal Code, and/or the Provincial Offences Act. These individuals are not members of the Royal College of Dental Surgeons of Ontario and are not entitled to practise dentistry in Ontario or to hold themselves out as a person who is qualified to practise in Ontario as a dentist or in a specialty of dentistry.
Gzim Bytyqi (a.k.a. Jimmy Connolly) - Toronto/Ottawa/Gatineau
Luis Cepeda - Mississauga
Yasong Chen - Scarborough/Markham
David Chuang - Brampton
Vladimir Gaydukov - Toronto
Khaled Emile Hashem - Ottawa
Ahmad Hassoun - Windsor
Mario Hervas - Toronto
Mohamad Ebrahim Hoodfar - Toronto
Velimir Ivanovski - Mississauga
Zygmunt Kurasz - Toronto
Bogdan Pavlyshyn - Toronto
Abram Peters - Courtland
Alexander Shterenberg (a.k.a. Alex Shterenberg) - Richmond Hill
Humberto Solano Rosania - London
If you are aware of these individuals, or anyone else working without a licence as a dentist in Ontario, please contact:
Lori Long
Manager - Professional Conduct and Regulatory Affairs
416-934-5623
1-800-565-4591
llong@rcdso.org

APPENDIX 3

April 2011

STANDARD OF PRACTICE

Approved by Council – April 18, 2011

Dental CT Scanners

This document is the standard of practice in relation to the use of dental computed tomography (CT) scanners with respect to dental services in Ontario. Since contravention of the Standard may be considered professional misconduct, dentists employing dental CT technology must be familiar with its content, be appropriately trained and regulate their practices accordingly.

The following are the **minimum** standards for the use of dental CT scanners in dentistry. For the purposes of this document, the Standard is divided into the following sections:

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Introduction

DENTAL CT SCANNERS

Dental computed tomography (CT) scanners are a significant addition to the imaging armamentarium available for the investigation of dental patients. Dental CT technology has rapidly improved over the past decade and as a result, there is much interest on the part of dentists to take advantage of this imaging modality for the diagnosis and treatment of their patients.

However, like conventional dental radiography, dental CT scanners utilize ionizing radiation, which can increase an individual's lifetime risk of developing cancer. This risk rises with cumulative dose, is greater for children than adults, and is greater for females than males. As with all dental procedures, the small risk associated with the taking of a dental CT scan must be weighed against its potential benefits.

Dental CT scanners are capable of providing excellent 3-dimensional diagnostic images of hard tissues with lower radiation doses than medical multislice CT scanners of the same area. However, such doses are usually significantly higher compared to conventional dental radiographic techniques, including panoramic radiography. Doses are dependent on equipment type and exposure settings, especially the field of view selected.

As with all dental imaging technology involving ionizing radiation, the principle of **ALARA (As Low As Reasonably Achievable)** should be foremost when considering the use of dental CT scanners. In other words, dental CT scanners must be utilized in a responsible way that maximizes diagnostic value given the clinical context, but without exposing patients to unnecessary amounts of ionizing radiation. This requires the clinician to exercise professional judgement to achieve the appropriate balance between these two considerations.

The Standard is applicable to all Ontario dentists who wish to install and operate a dental CT scanner for the purpose of imaging dental patients, as well as those who wish to prescribe dental CT scans for diagnostic purposes. Because of the rapid advancements in this field, and the proliferation of dental CT equipment manufacturers and models, newer imaging technologies that use ionizing radiation will need to be assessed. It is also expected that education and training in this technology will become a greater part of the undergraduate and specialty programs in dentistry. Accordingly, the Standard should be periodically reviewed by the Royal College of Dental Surgeons of Ontario (RCDSO) to keep pace with these developments.

Field of View

Dental CT scanners may be classified by the spherical diameter or cylinder height of the image or "field of view" generated.

- Small field of view – 8 centimetres or less

A small field of view is useful for imaging the teeth, their supporting structures, the mandible and the maxilla up to the floor of the nose (i.e. dentoalveolar CT scan).

- Large field of view – over 8 centimetres

In addition to dentoalveolar structures, a large field of view may include intracranial structures, the base of the skull, the temporomandibular joint, the paranasal sinuses, the cervical spine, the neck and the airway spaces (i.e. craniofacial CT scan).

Some dental CT scanners offer a range of fields of view, while others are limited to a fixed field of view.

No matter the size, it is imperative that the entire field of view generated is examined and systematically reviewed for the presence of disease, regardless of the specific reason for which it was ordered and taken.

GUIDING PRINCIPLES FOR DENTAL CT SCANS

In addition to ALARA, the following guiding principles focus on strategies to manage and reduce the radiation dose related to dental CT scans:

1. A patient history and clinical examination must be completed prior to ordering and taking a dental CT scan. This must include an assessment of recent radiographs and/or other images that have been taken of the patient in the area of clinical interest.

2. The decision to order and take a dental CT scan must be justified. A dental CT scan should only be ordered and taken when the question for which imaging is required cannot be answered adequately by lower dose conventional dental radiography or alternative imaging modalities.

3. Women of childbearing age must be screened for pregnancy. If the patient is pregnant or possibly pregnant, the benefits of performing a dental CT scan must be weighed against the possible risk to the fetus.

4. Each facility must develop a protocol for pediatric patients adjusted for size.

5. The field of view must be collimated to the area of clinical interest.

6. Each facility must develop a policy for patient shielding specifically for dental CT imaging.

7. All dentists operating a dental CT scanner at each facility shall be knowledgeable about the operational parameters of the unit and their influence on radiation dose and image quality.

8. A follow-up dental CT scan must be justified. If necessary, serious consideration should be given to modifying the field of view in order to reduce the radiation dose to the patient.

Professional Requirements

EDUCATIONAL REQUIREMENTS

Qualifications of Dentists

The prescribing dentist is responsible for ordering, taking, interpreting and reporting on any dental CT scan of a patient, and must have the requisite qualifications to do so. In addition, the prescribing dentist is responsible for ensuring that established policies and practices of the facility are followed to ensure patient safety and the quality of diagnostic imaging.

The prescribing dentist must be currently registered in Ontario, and have successfully completed a theoretical and practical training program designed to produce competency in the ordering, taking, interpreting and reporting of dental CT scans with respect to the field of view generated.

1. Dentoalveolar CT scans

For dentoalveolar CT scans of the teeth, their supporting structures, the mandible and the maxilla up to the floor of the nose (i.e. small field of view with a spherical diameter or cylinder height of 8 centimetres or less), the following training is required:

- Successful completion of a course of instruction of at least two days duration with examination that must be affiliated with an accredited university, and organized and taught by dentists certified in oral and maxillofacial radiology. The curriculum must include theoretical and practical components, addressing radiation physics and protection, indications and contraindications for dental CT scans, patient positioning, selection of parameters, development and implementation of protocols, and processing, interpreting and reporting of images. A certificate or other evidence of satisfactory completion of the course, as well as a description of the program, signed by the course director must be submitted to RCDSO for consideration.

2. Craniofacial CT scans
For craniofacial CT scans involving non-dentoalveolar structures, including intracranial structures, the base of the skull, the temporomandibular joint, the paranasal sinuses, the cervical spine, the neck and/or the airway spaces (i.e. large field of view with a spherical diameter or cylinder height of over 8 centimetres), the following training is required:

a) Successful completion of a formal post-graduate program in oral and maxillofacial radiology, suitable for certification in the province of Ontario. The program must have specifically evaluated and attested to the competency of the individual; **OR**

b)
- Successful completion of a formal post-graduate program in oral and maxillofacial surgery, suitable for certification in the province of Ontario. The program must have specifically evaluated and attested to the competency of the individual; **AND**
- Successful completion of a mentoring program with a certified oral and maxillofacial radiologist or certified medical radiologist, involving the interpreting and reporting of at least 50 craniofacial CT scans. A letter or other evidence of satisfactory completion of the mentoring program and attesting to the competence of the candidate, as well as a description of the program, signed by the mentor must be submitted to RCDSO for consideration.

On-Site Training and Continuing Education
In addition to the above specified training, all prescribing dentists ordering and taking dental CT scans must receive on-site training in the safe operation of the equipment at the time of installation.

As well, prescribing dentists are expected to include courses and/or other educational programs related to the ordering, taking, interpreting and reporting of dental CT scans in their personal continuing dental education planning.

FACILITY REQUIREMENTS

Registration with RCDSO
All dentists who wish to install and operate a dental CT scanner in their facility must register with RCDSO and obtain a facility permit, which will be granted subject to the qualifications set out above and conformance with all aspects of the Standard. Furthermore, all dentists who wish to prescribe dental CT scans in the facility must register with RCDSO.

The facility permit will clearly designate the type of dental CT scanner that has been approved for use in that particular facility, as follows:

- DA-SCANNER Permit – dentoalveolar CT scanner with a field of view of 8 centimetres or less; **OR**
- CF- SCANNER Permit – craniofacial CT scanner with a field of view of over 8 centimetres.

The facility permit holder must be designated as the Radiation Protection Officer for the dental CT scanner. The facility permit holder bears the ultimate responsibility for:

- developing and maintaining a procedure to ensure that only dental CT scans that are indicated and appropriate are provided (see Guiding Principles for Dental CT Scans);
- developing, implementing and reviewing all dental CT imaging protocols for both adult and pediatric patients, including acquisition parameters, scanning region, patient positioning and use of protective shielding;
- ensuring that a qualified prescribing dentist is present in the facility whenever the dental CT scanner is being operated;
- reviewing the qualifications, on-site training and continuing education of all prescribing dentists ordering and taking dental CT scans; and
- developing and maintaining a quality assurance program to ensure the accuracy and reliability of the facility's equipment (see Quality Assurance Program).

Installation

1. Approval by Director of X-Ray Safety

As with any x-ray machine, under section 3 of the Healing Arts Radiation Protection Act (HARP Act) R.S.O. 1990, c.H.2, the written approval of the Director of X-ray Safety is required for a dental CT scanner to be installed. Furthermore, under section 23 of the HARP Act, the Minister of Health and Long-Term Care or his or her delegate must designate the facility for the installation and operation of any dental CT scanner.

IMPORTANT:
The facility permit will clearly designate the type of dental CT scanner that has been approved for use in that particular facility. Therefore, it is important to obtain a facility permit prior to seeking the approval by the Director of X-Ray Safety.

2. Initial equipment specifications and acceptance tests

The dental CT scanner must be new when installed in the facility. Further, it should have been manufactured within 12 months of installation and employ current technology.

The dental CT scanner must pass all acceptance tests at the time of installation as recommended by the manufacturer, including tests of X-ray tube output, voltage consistency and accuracy, filtration, exposure time and radiation field. Specific tests should, where applicable, include the following:

- CTDI (computed tomography dose index) must be measured to verify that it meets the unit manufacturer's specifications.
- CT number accuracy must be measured to verify that it meets the unit manufacturer's specifications in all protocols used.
- CT pixel noise must be measured to verify that it meets the unit manufacturer's specifications.
- Limiting spatial resolution must be measured to verify that it meets the unit manufacturer's specifications.
- Radiation beam width must be measured to verify that it meets the manufacturer's specifications.
- Slice sensitivity profile must be measured to verify that it meets the manufacturer's specifications.
- Accuracy of slice alignment indicators must be measured to verify that it meets the manufacturer's specifications.
- Verify no unusual artefacts.

In addition, testing of the correct operation of any automatic exposure control device, if fitted, is essential.

All prescribing dentists ordering and taking dental CT scans must receive on-site training in the safe operation of the equipment at the time of installation.

IMPORTANT:
A dental CT scanner must receive a critical examination and detailed acceptance tests when installed, and routine quality assurance tests throughout the life of the equipment.

Quality Assurance Program
A quality assurance program must be instituted to minimize the radiation risk to patients and staff, while ensuring consistently adequate diagnostic information is obtained from dental CT scans.

The quality assurance program should entail surveys and checks that are performed according to a regular timetable. A written log of this program must be maintained.

Quality control activities include, but are not limited to, the following:

- The facility has documented policies and procedures for monitoring and evaluating the effective management, safety and operation of dental CT equipment, as outlined by the provincial standard.
- Dental CT scanners are properly maintained and calibrated as recommended by the manufacturer.
- All safety measures are in compliance with federal and provincial laws/regulations. Specific tests include those conducted at the time of installation as recommended by the manufacturer.
- Written records of preventative maintenance and equipment calibration are maintained.
- A CT value phantom test is performed in accordance with equipment supplier guidelines.

CLINICAL REQUIREMENTS

A referring dentist may request a dental CT scan of a patient. However, the prescribing dentist is responsible for ordering, taking, interpreting and reporting on any dental CT scan of a patient.

The decision to order and take a dental CT scan must be justified on an individual basis by demonstrating that the benefits to the patient outweigh the potential risks. The justification process for a pediatric patient is especially important, because of the higher risks associated with the exposure of children to ionizing radiation. A dental CT scan should only be ordered and taken when the question for which imaging is required cannot be answered adequately by lower dose conventional dental radiography or alternative imaging modalities.

IMPORTANT:
Dental CT scans must not be ordered and taken routinely or for screening purposes.

Patient Referrals
The patient referral should be accompanied by sufficient clinical information to allow the prescribing dentist to perform the justification process. The following information should be provided by the referring dentist:

- the patient's name, address and date of birth;
- the referring dentist's name, as well as the names of any other dentists who are to receive copies of the report;
- the type of dental CT scan requested for the patient, including any special instructions;

- pertinent clinical information, such as case history, provisional diagnosis and/or proposed treatment;
- copies or a written report of any recent radiographs and/or other images that have been taken of the patient in the area of clinical interest.

If a patient arrives without appropriate referral information, the prescribing dentist must contact the referring dentist for clarification.

The prescribing dentist must complete his/her own patient history and clinical examination prior to ordering and taking a dental CT scan, as per guiding principles.

Interpretation of Dental CT Scans
It is imperative that the entire field of view generated is examined and systematically reviewed for the presence of disease, regardless of the specific reason for which it was ordered and taken.

If there is any uncertainty regarding the interpretation of a dental CT scan, consultation with an oral and maxillofacial radiologist or medical radiologist must be obtained.

Reporting of Dental CT Scans
A written report of the interpretation must be prepared for each dental CT scan, regardless of the field of view generated or the specific reason for which it was ordered and taken. A report must include the following information:

- the patient's name, address and date of birth;
- the prescribing dentist's name;
- the type of dental CT scan performed;
- the dates of the dental CT scan, dictation and transcription;
- any limitations or technical factors, such as patient movement or metallic artefacts;
- the reasons for taking additional radiographs and/or images, if deemed necessary;
- the findings, using precise anatomical and radiological terminology;
- any pertinent clinical issues raised in the request for the dental CT scan;
- comparative information with previous radiographs and/or other images;
- a "conclusion" section, unless the dental CT scan is being compared with other recent radiographs and/or other images and no changes have occurred during the interval, or the body of the report is brief. The report should also contain:
  - a precise diagnosis, whenever possible;
  - a differential diagnosis, when appropriate;
  - recommendations, when appropriate;
  - follow-up and additional diagnostic radiological studies to clarify or confirm the conclusion.

The final report should be proofread and signed.

Unusual, unexpected or urgent findings that may require immediate case management decisions shall be communicated to the referring dentist by the prescribing dentist.

Direct or attempted direct communication with the referring dentist must be documented.

Any discrepancy between a preliminary report and the final written report shall be directly communicated to the referring dentist or her/his representative.

RETENTION OF RECORDS

The dental CT dataset must be retained in compliance with the regulations and should be exportable in a format compatible with the International Standards Organization (ISO) referenced Digital Imaging and Communications in Medicine (DICOM) Standard. Dental CT images should display the patient's name, date, mAs, kVp and slice thickness. A copy of the final interpretation report must also be retained.

Appendix

ADDITIONAL RESOURCES AND REFERENCE MATERIALS AVAILABLE ON THE INTERNET

American Academy of Oral and Maxillofacial Radiology Executive Opinion Statement on Performing and Interpreting Diagnostic Cone Beam Computed Tomography, October 2008
American Academy of Oral and Maxillofacial Radiology
www.aaomr.org/resource/resmgr/Docs/AAOMRExecStatement.pdf

Healing Arts Radiation Protection (HARP) Commission Report, June 2007
Ontario Ministry of Health and Long-Term Care
www.health.gov.on.ca/english/public/pub/ministry_reports/harp/harp_report.pdf

Independent Health Facilities, Clinical Practice Parameters and Facility Standards, Computed Tomography, 2nd Edition 2009
College of Physicians and Surgeons of Ontario
www.cpso.on.ca/uploadedFiles/policies/guidelines/facilties/Computed%20Tomography.pdf

Radiation Protection: Cone Beam CT for Dental and Maxillofacial Radiology, Provisional Guidelines 2009 (v1.1 May 2009)
European Academy of DentoMaxilloFacial Radiology
www.sedentexct.eu/system/files/sedentexct_project_provisional_guidelines.pdf

Report of the Diagnostic Imaging Safety Committee for Computed Tomography (CT), February 2007
Ontario Ministry of Health and Long-Term Care
www.health.gov.on.ca/english/public/pub/ministry_reports/disc_ct_mri/ct_report.pdf

06/13_3387

STANDARD OF PRACTICE

Use of Sedation and General Anesthesia in Dental Practice

Approved by Council – June 2012

This is replacing the document last published on May 14, 2009.

This document is the standard of practice in relation to inducing general anesthesia, deep sedation or conscious sedation with respect to dental services in Ontario. Since contravention of the Standard may be considered professional misconduct, dentists employing any modality of drug-induced sedation or general anesthesia must be familiar with its content, be appropriately trained, and regulate their practices accordingly. It must be read in conjunction with College By-Law No.13: Sedation and General Anesthesia, which by-law forms part of this Standard.

INTRODUCTION

The following are the **minimum** standards for the use of sedation and/or general anesthesia in dentistry. For the purposes of this document, these standards are divided into the following sections:

- General standards for all modalities of sedation or general anesthesia

- Specific standards for the following particular modalities:
  - Administration of nitrous oxide and oxygen
  - Oral administration of a single sedative drug
  - Oral administration of a single sedative drug with nitrous oxide and oxygen
  - Oral administration of multiple sedative drugs, with or without nitrous oxide and oxygen
  - Parenteral administration of sedative drugs (intravenous, intramuscular, subcutaneous, submucosal or intranasal)
  - Deep sedation
  - General anesthesia

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General Standards For All Modalities of Sedation or General Anesthesia

Sedation or general anesthesia may be indicated to:

- treat patient anxiety associated with dental treatment;
- enable treatment for patients who have cognitive impairment or motor dysfunction which prevents adequate dental treatment;
- treat patients below the age of reason; or
- for traumatic or extensive dental procedures.

These techniques are to be used only when indicated, as an adjunct to appropriate non-pharmacological means of patient management.

PROFESSIONAL RESPONSIBILITIES

The following professional responsibilities apply to all modalities of sedation or general anesthesia.

1. Successful completion of a training program designed to produce competency in the specific modality of sedation or general anesthesia utilized is mandatory.

2. The dental facility must comply with all applicable building codes, including fire safety, electrical and access requirements. The size and layout of the facility must be adequate for all procedures to be performed safely and provide for the safe evacuation of patients and staff in case of an emergency.

3. The dental facility must be suitably staffed and equipped for the specific modality(ies) practised as prescribed in this document.

4. An adequate, clearly recorded current medical history, including present and past illnesses, hospital admissions, current medications and/or non-prescription drugs and/or herbal supplements, as well as dose, allergies (in particular to drugs), and a functional inquiry, along with an appropriate physical examination must be completed for each patient prior to the administration of any form of sedation or general anesthesia. For medically compromised patients, consultation with their physician may be indicated. This must form a permanent part of each patient's record, consistent in content with Appendix I. Additionally, the medical history must be reviewed for any changes at each sedation appointment. Such a review must be documented in the permanent record.

5. A determination of the patient's American Society of Anesthesiologists (ASA) Physical Status Classification (see Appendix II), as well as careful evaluation of any other factors which may affect his/her suitability for sedation or general anesthesia must be made prior to its administration. These findings will be used as a guide in determining the appropriate facility and technique used.

6. Patients who are ASA IV and above are generally not acceptable for the administration of deep sedation or general anesthesia in out-of-hospital dental facilities. The administration of nitrous oxide and oxygen may be considered for these patients. Other modalities for minimal and moderate sedation may be considered **only** by those practitioners who are qualified to administer deep sedation or general anesthesia.

7. Only the following persons may administer any sedative or general anesthetic agent in the dental setting:

- A dentist currently registered with the Royal College of Dental Surgeons of Ontario (RCDSO);

DRUG	INDICATION	INITIAL ADULT DOSE	RECOMMENDED CHILD DOSE
Oxygen	Most medical emergencies	100% inhalation	100% inhalation
Epinephrine	Anaphylaxis	0.3-0.5 mg i.m.* or 0.01-0.1 mg i.v.	0.01 mg/kg
	Asthmatic bronchospasm which is unresponsive to salbutamol	0.3-0.5 mg i.m.* or 0.01-0.1 mg i.v.	0.01mg/kg
	Cardiac arrest	1 mg i.v.	0.01mg/kg
Nitroglycerin	Angina pectoris	0.3 or 0.4 mg sublingual	No paediatric dose
Diphenhydramine or chlorpheniramine	Allergic reactions	50 mg i.m.* or i.v. 10 mg i.m.* or i.v.	1 mg/kg
Salbutamol inhalation aerosol	Asthmatic bronchospasm	2 puffs (100 micrograms/puff)	1 puff
ASA	Acute Myocardial Infarction	160 or 325 mg	Not indicated

**The dose suggested for the i.m. route is also appropriate for sublingual injections. Total paediatric dose should not exceed the adult dose.*

- A physician currently registered with the College of Physicians and Surgeons of Ontario (CPSO);
- A nurse currently registered with the College of Nurses of Ontario in the general class in the RN category acting under the required order and the direct control and supervision of a dentist or a physician, currently registered in Ontario;
- A respiratory therapist currently registered with the College of Respiratory Therapists of Ontario acting under the required order and the direct control and supervision of a dentist or a physician, currently registered in Ontario;
- **For minimal sedation only**, a nurse currently registered with the College of Nurses of Ontario in the general class in the RPN category, who has obtained a two-year diploma in Practical Nursing from a Community College of Applied Arts or completed an enhanced medication course in the administration and monitoring of minimal sedation, acting under the required order and the direct control and supervision of a dentist, currently registered in Ontario.

8. All dentists and dental office staff must be prepared to recognize and treat adverse responses using appropriate emergency equipment and appropriate and current drugs when necessary. All dentists and clinical staff must have the training and ability to perform basic life support (BLS) techniques. It is strongly recommended that all dentists maintain current BLS certification (CPR Level HCP). All dentists providing sedation and/or general anesthesia must maintain current BLS certification (CPR Level HCP) as a minimum. Dentists should establish written protocols for emergency procedures and review them with their staff regularly. The following table outlines the six basic drugs that should be included in the emergency kit of every dental office. All dental offices providing sedation and/or general anesthesia are required to have additional emergency drugs and armamentaria, as described in the sections dealing with specific modalities.

9. Dentists must take into account the maximum dose of local anesthetic that may be safely administered, especially for children, the elderly and the medically compromised. Whenever sedation or general anesthesia is used, the calculated maximum dose of local anesthetic may need to be further adjusted to provide a greater margin of safety.

10. Dentists using any of the sedation and/or general anesthesia techniques described in this document for their patients, including oral sedation and/or nitrous oxide and oxygen conscious sedation, are expected to include courses and/or other educational programs related to these modalities in their personal continuing dental education planning.

11. In order to avoid allegations of sexual impropriety, additional appropriate staff should be present in the treatment room at all times whenever sedation or general anesthesia is used.

Dentists using sedative and/or general anesthetic agents should take reasonable precautions to prevent the unauthorized use of these substances for recreational purposes by office staff and other individuals with access to the office and equipment. Preventive strategies include the following:

- Institute an inventory of all narcotic and controlled drugs and substances.
- Keep drugs in a locked storage cupboard, along with a drug log that accounts for the dispensing of all narcotic and controlled drugs and substances.
- Keep careful control of blank prescription pads and **NEVER** pre-sign prescription sheets.
- Use staff training sessions and meetings to discuss the dangers of drug and substance abuse, to remind staff of the safeguards and protocols in the office to prevent misuse of supplies, and to provide information about resources that are available to dental professionals to assist with wellness issues.

Specific Standards For Particular Modalities Part I – Conscious Sedation

DEFINITION

Conscious sedation is a minimally to moderately depressed level of consciousness that retains the patient's ability to independently and continuously maintain an airway and respond appropriately to physical stimulation and verbal command.

It is produced by a pharmacological or non-pharmacological method or a combination thereof. In dentistry, it is used to reinforce positive suggestion and reassurance in a way which allows dental treatment to be performed with minimal physiological and psychological stress, and enhanced physical comfort.

It must be emphasized that sedation and general anesthesia are produced along a continuum, ranging from the relief of anxiety with little or no associated drowsiness (i.e. anxiolysis), up to and including a state of unconsciousness (i.e. general anesthesia). It is not always possible to predict how an individual patient will respond and, at times, it can be difficult to precisely define the end-point of conscious sedation and the starting points of deep sedation and general anesthesia. Therefore, the drugs and techniques used for conscious sedation must carry a margin of safety wide enough to render loss of consciousness highly unlikely.

Conscious sedation may be further divided into minimal sedation and moderate sedation, as defined by the American Dental Association (see the table in Appendix III - Characteristics of the Levels of Sedation and General Anesthesia).

With **minimal sedation**, the patient responds normally to tactile stimulation and verbal commands. Although cognitive function and coordination may be modestly impaired, ventilatory and cardiovascular functions are unaffected. Minimal sedation is usually accomplished by the following modalities:

1. administration of nitrous oxide and oxygen
2. oral administration of a single sedative drug
3. oral administration of a single sedative drug with nitrous oxide and oxygen

With **moderate sedation**, the patient responds purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained. Moderate sedation is usually accomplished by the following modalities:

4. oral administration of multiple sedative drugs, with or without nitrous oxide and oxygen
5. parenteral administration of a sedative drug(s) (intravenous, intramuscular, subcutaneous, submucosal or intranasal)

Practitioners intending to produce a given level of sedation should be able to diagnose and manage the physiological consequences (rescue) for patients whose level of sedation becomes deeper than initially intended. For all levels of sedation, the practitioner must have the training, skills, drugs and equipment to identify and manage such an occurrence until either assistance arrives (e.g. emergency medical service) or the patient returns to the intended level of sedation without airway or cardiovascular complications.

PROFESSIONAL RESPONSIBILITIES FOR ALL MODALITIES OF CONSCIOUS SEDATION

In addition to the General Standards listed previously, the following professional responsibilities apply to all modalities of conscious sedation:

i) Successful completion of a training program designed to produce competency in the use of the specific modality of conscious sedation, including indications, contraindications, patient evaluation, patient selection, pharmacology of relevant drugs, and management of potential adverse reactions, is mandatory. The training program must be obtained from one or more of the following sources:

- Ontario Faculties of Dentistry undergraduate and postgraduate programs
- other Faculties of Dentistry undergraduate and postgraduate programs, approved by RCDSO
- Ontario Faculties of Dentistry continuing education programs
- other continuing education courses approved by RCDSO which follow the general principle that they shall be:
  - Organized and taught by dentists certified to administer anesthesia and sedation as they apply to dentistry, supplemented as necessary by persons experienced in the technique being taught.
  - Held in a properly equipped dental environment which will permit the candidates to utilize the techniques being taught on patients during dental treatment.
  - Followed by a recorded assessment of the competence of the candidates.

ii) Dentists whose training does not exceed that described as necessary for the administration of conscious sedation are cautioned not to exceed that level of depression defined above. Single drug choice in a carefully considered dose is a prudent approach to conscious sedation. Significant approved additional training, as outlined elsewhere in this document, is required if more than one drug is to be used.

iii) Should the administration of any drug produce depression beyond that of conscious sedation, the dental procedures should be halted. Appropriate support procedures must be administered until the level of depression is no longer beyond that of conscious sedation, or until additional emergency assistance is effected.

iv) Conscious sedation techniques require the patient to be discharged to the care of a responsible adult. The only situation in which a dentist may exercise discretion as to whether a patient may be discharged unaccompanied is that in which nitrous oxide and oxygen sedation **alone** is the technique used. All patients must be specifically assessed for fitness for discharge as described elsewhere in this document.

(A) MINIMAL SEDATION

- administration of nitrous oxide and oxygen
- oral administration of a single sedative drug
- oral administration of a single sedative drug with nitrous oxide and oxygen

In all cases where the intention is to achieve moderate sedation using any modality of conscious sedation, including the oral administration of a single sedative drug, with or without nitrous oxide and oxygen, the dentist must adhere to the standards for moderate sedation. This includes the professional responsibilities of registering with RCDSO and obtaining a facility permit.

1. ADMINISTRATION OF NITROUS OXIDE AND OXYGEN

In addition to the General Standards and professional responsibilities listed at the beginning of this document, the following professional responsibilities apply when nitrous oxide and oxygen sedation is being administered:

i) Gas delivery systems used for the administration of nitrous oxide and oxygen:
a. Must have a fail-safe mechanism such that it will not deliver an oxygen concentration of less than 30% in the delivered gas mixture.
b. Must have pipeline inlet fittings, or pin-indexing, that do not permit interchange of connections with oxygen and nitrous oxide.
c. Must be checked regularly for functional integrity by appropriately trained personnel; must function reliably and accurately; and receive appropriate care and maintenance according to manufacturer's instructions or annually, whichever is more frequent. **A written record of this annual maintenance/ servicing must be kept on file for review by RCDSO as required.**
d. Must be equipped with a common gas outlet compatible with 15mm male and 22mm female conical connectors.
e. Must have readily available a reserve supply of oxygen ready for immediate use. This should be a portable "E" size cylinder attached with appropriate regulator and flowmeter, as well as connectors, tubing and reservoir bag which allow use of a full face mask for resuscitative ventilation with 100% oxygen.
f. Must be equipped with a scavenging system installed per manufacturer's specifications.

ii) Nitrous oxide and oxygen sedation must be administered by:
a. an appropriately trained dentist **OR**
b. an appropriately trained registered nurse, registered respiratory therapist or registered practical nurse, under the order of an appropriately trained dentist, provided that:

- an appropriately trained dentist is present at all times in the office suite and **immediately** available in the event of an emergency;
- nitrous oxide and oxygen sedation has been previously administered for the patient by the dentist;
- appropriate dosage levels have been previously determined and recorded by the dentist in the patient record.

iii) Patients receiving nitrous oxide and oxygen sedation must be supervised by an appropriately trained dentist, or an appropriately trained registered nurse, registered respiratory therapist or registered practical nurse, and must never be left unattended during administration.

iv) Patients should be monitored by an appropriately trained dentist, or an appropriately trained registered nurse, registered respiratory therapist or registered practical nurse under the order of a dentist, by direct and continuous clinical observation for level of consciousness and assessment of vital signs which may include heart rate, blood pressure, and respiration preoperatively, intraoperatively and post-operatively, as necessary.

v) Recovery status post-operatively must be specifically assessed and recorded by the dentist, who must remain in the facility until that patient is fit for discharge. Only fully recovered patients can be considered for discharge unaccompanied. If discharge occurs with any residual symptoms, the patient must be accompanied by a responsible adult.

2. ORAL ADMINISTRATION OF A SINGLE SEDATIVE DRUG

The General Standards and professional responsibilities listed previously apply to this route of administration, when used to induce minimal sedation. For the purposes of this document, these also apply to the sublingual route of administration.

i) A dose of an oral sedative used to induce minimal or moderate sedation should be administered to the patient in the dental office, taking into account the time required for drug absorption. Patients must be monitored by clinical observation of the level of consciousness and assessment of vital signs which may include heart rate, blood pressure, and respiration. Patients may be discharged to the care of a responsible adult when they are oriented i.e. to time, place and person relative to the pre-anesthetic condition, ambulatory, with stable vital signs, and showing signs of increasing alertness. The patient must be instructed to not drive a vehicle, operate hazardous machinery or consume alcohol for a minimum of 18 hours, or longer if drowsiness, or dizziness persists.

Children, the elderly, and the medically compromised including patients who are taking prescribed medication with sedative properties require appropriate adjustment of the dose of the oral sedative agent to ensure that the intended level of minimal sedation is not exceeded. Continuous monitoring with pulse oximetry is strongly recommended for these patients.

ii) There are two possible exceptions to the recommendation that the oral sedative be administered in the dental office. One indication is if the practitioner has determined that the patient requires an oral sedative to facilitate sleep the night prior to the dental procedure. The second indication is when the patient's anxiety is such that sedation is required to permit arrival to the dental office. In addition to the requirements in paragraph i) above, the following additional requirements apply in these two situations:

- Each patient must be screened by the dentist at a prior appointment, with an appropriate medical history, as described in the General Standards in this document.
- Only one sedative drug should be prescribed at any one time, preferably a benzodiazepine or an antihistamine.
- The patient must be instructed not to drive a vehicle and must be accompanied to and from the dental office.
- In each case, clear written instructions must be given to the patient or guardian explaining how to take the medication, the need for accompaniment and listing the expected effects from this drug.

iii) Emergency equipment and drugs must be available at all times. Drugs must be current and stored in readily identifiable and organized fashion (i.e. labelled trays or bags). It is the dentist's responsibility to ensure that the dental office in which sedation is being performed is equipped with the following:

- full face masks of appropriate sizes and connectors
- current drugs for management of emergencies, including:
  - oxygen (an E-size cylinder is required)
  - epinephrine
  - nitroglycerin
  - parenteral diphenhydramine
  - salbutamol
  - flumazenil (if a benzodiazepine is administered)
  - naloxone (if an opioid is administered)
  - acetylsalicylic acid (ASA, non-enteric coated)

3. ORAL ADMINISTRATION OF A SINGLE SEDATIVE DRUG WITH NITROUS OXIDE AND OXYGEN

Oral administration of a single sedative drug with nitrous oxide and oxygen should not be used unless the dentist has had the following additional training:

- dentists who qualify for the administration of deep sedation and general anesthesia, as outlined in Part II of this document;
- dentists who qualify for the administration of moderate sedation, as outlined later in this document;
- dentists with training that has specifically incorporated the teaching of this technique, and has evaluated and attested to the competency of the candidate.

If an oral sedative has been administered, nitrous oxide and oxygen must be slowly titrated to achieve the signs and symptoms of minimal sedation, with vigilant assessment of the level of consciousness.

Children, the elderly, and the medically compromised including patients who are taking prescribed medication with sedative properties require appropriate adjustment of the dose of the oral sedative agent to ensure that the intended level of minimal sedation is not exceeded.

Sedation Protocol

1. Clinical observation must be supplemented by the following means of monitoring throughout the sedation administration:

- continuous pulse oximeter monitoring of oxyhemoglobin saturation;
- blood pressure and pulse must be taken and recorded preoperatively, and monitored throughout the sedation period as indicated;
- respiration.

2. Alarm settings and their audio component on monitoring equipment must be used at all times.

3. The patient may be discharged once he/she shows signs of progressively increasing alertness and has met the following criteria:

- conscious and oriented
- vital signs are stable
- ambulatory

4. The patient must be discharged to the care of a responsible adult.

5. Written post-sedation instructions must be given. The patient must be instructed to not drive a vehicle, operate hazardous machinery or consume alcohol for a minimum of 18 hours, or longer if drowsiness, or dizziness persists.

In cases where the dentist has determined that the use of a blood pressure cuff and/or pulse oximeter would be an impediment to the management of an individual patient, and the patient is clearly conscious throughout the procedure, a decision may be made not to use these monitors. In these isolated cases, a notation explaining the reason for not using these monitors must be recorded in the chart. Furthermore, these monitors (pulse oximeter, stethoscope and sphygmomanometer) must be present in the office and readily available for use.

Sedation Equipment

Emergency equipment and drugs must be available at all times. Drugs must be current and stored in readily identifiable and organized fashion (i.e. labelled trays or bags). All automated monitors must receive regular service and maintenance by qualified personnel according to the manufacturer's specifications, or annually, whichever is more frequent. **A written record of this annual maintenance/servicing must be kept on file for review by RCDSO as required.**

It is the dentist's responsibility to ensure that the dental office in which sedation is being performed is equipped with the following:

- pulse oximeter
- stethoscope and sphygmomanometers of appropriate sizes
- full face masks of appropriate sizes and connectors
- current drugs for management of emergencies, including:
  - oxygen (an E-size cylinder is required)
  - epinephrine
  - nitroglycerin
  - parenteral diphenhydramine
  - salbutamol
  - flumazenil (if a benzodiazepine is administered)
  - naloxone (if an opioid is administered)
  - acetylsalicylic acid (ASA, non-enteric coated)

(B) MODERATE SEDATION

It is assumed that this will be accomplished by either:

- oral administration of multiple sedative drugs, with or without nitrous oxide and oxygen;
- parenteral administration of a sedative drug(s) (intravenous, intramuscular, subcutaneous, submucosal or intranasal).

However, in all cases where the intention is to achieve moderate sedation using any modality of conscious sedation, including the oral administration of a single sedative drug, with or without nitrous oxide and oxygen, the dentist must adhere to the standards for moderate sedation. This includes the professional responsibilities of registering with RCDSO and obtaining a facility permit.

1. ORAL ADMINISTRATION OF MULTIPLE SEDATIVE DRUGS, WITH OR WITHOUT NITROUS OXIDE AND OXYGEN

In addition to the General Standards, this section outlines standards specific to any conscious sedation technique utilizing the oral administration of multiple sedative drugs, with or without nitrous oxide and oxygen.

Additional Professional Responsibilities

1. All dentists utilizing the oral administration of multiple sedative drugs, with or without nitrous oxide and oxygen, must be registered with RCDSO to do so.

2. All facilities utilizing the oral administration of multiple sedative drugs, with or without nitrous oxide and oxygen, must have a permit from RCDSO. Such permit will be granted subject to training and conformance with all aspects of the Standard and subject to satisfactory on-site inspections and evaluation by RCDSO.

3. The following training is required:

- dentists who qualify for the administration of deep sedation and general anesthesia, as outlined in Part II of this document;
- dentists who qualify for the administration of parenteral conscious sedation, as outlined later in this document;
- dentists with formal training in a post-doctoral specialty program that has specifically incorporated the techniques utilizing more than one sedative agent, as well as appropriate airway management, and has evaluated and attested to the competency of the candidate;
- dentists with continuing education training that has specifically incorporated the teaching of techniques utilizing any modality to produce moderate sedation, as well as appropriate airway management, and has evaluated and attested to the competency of the candidate;
- dentists with other training and/or experience who received approval from RCDSO prior to December 31, 2012.

If one or more oral sedatives have been administered and nitrous oxide/oxygen is used, it must be slowly titrated to achieve the signs and symptoms of conscious sedation, with vigilant assessment of the level of consciousness.

The administration of a single dose of an oral sedative is a prudent approach to either minimal or moderate conscious sedation. **The administration of multiple doses of an oral sedative until a desired effect is reached (i.e. "incremental dosing") is discouraged and if used, must be carried out with great caution.** Knowledge of the oral sedative's time of onset, peak response and duration of action is essential to avoid over-sedation. Before administering an additional dose of an oral sedative, the dentist must ensure that the previous dose has taken full effect. **The maximum recommended dose of an oral sedative must not be exceeded at any one appointment.**

Children, the elderly, and the medically compromised including patients who are taking prescribed medication with sedative properties require appropriate adjustment of the dose(s) of the oral sedative agent(s) to ensure that the intended level of conscious sedation is not exceeded.

Dentists, who use the services of a visiting dentist, share the responsibility of complying with the Standard. However, the ultimate responsibility rests with the permit holder to ensure that:

- the visiting dentist is registered with RCDSO to administer oral moderate sedation;
- the visiting dentist has no term, condition or limitation on his or her certificate of registration relevant to the administration of sedation or general anesthesia; and
- all required emergency and other equipment is available and emergency drugs are on-site and current.

With the exception of oxygen, EITHER the permit holder OR the visiting dentist MUST provide all required emergency equipment and drugs. The shared provision of emergency equipment and drugs is NOT allowed.

OFFICE PROTOCOL AND FACILITIES

The facility must permit adequate access for emergency stretchers and have auxiliary powered backup for suction, lighting and monitors for use in the event of a power or system failure.

1. Patient Selection

An adequate, clearly recorded current medical history, including present and past illnesses, hospital admissions, current medications and dose, allergies (in particular to drugs), and a functional inquiry, along with an appropriate physical examination must be completed for each patient and must form a permanent part of each patient's record. For medically compromised patients, consultation with their physician may be indicated. This assessment should be consistent in content with Appendix I.

The patient's ASA Classification (see Appendix II) and risk assessment must then be determined. These findings will be used to determine the appropriate facility and technique used.

2. Sedation Protocol

1. The medical history must be reviewed for any changes, at each sedation appointment. Such a review must be documented in the permanent record.

2. The patient must have complied with the minimum duration of fasting prior to appointments that is consistent with the following minimum requirements:

- 8 hours after a meal that includes meat, fried or fatty foods;
- 6 hours after a light meal (such as toast and a clear fluid), or after ingestion of infant formula or nonhuman milk;
- 4 hours after ingestion of breast milk; and
- 2 hours after clear fluids (such as water, fruit juices without pulp, carbonated beverages, clear tea, and black coffee, but NOT alcohol).

Possible exceptions to this are usual medications or preoperative medications which may be taken as deemed necessary by the dentist.

To avoid confusion, some dentists may wish to simplify their preoperative instructions to patients regarding fasting requirements. For example, patients might be instructed not to have any solid food for a minimum of eight hours, and not to have any fluids for a minimum of two hours, prior to the appointment. Such instructions would be consistent with the minimum fasting requirements.

3. Clinical observation must be supplemented by the following means of monitoring throughout the sedation administration:
- continuous pulse oximeter monitoring of oxyhemoglobin saturation, recorded at a minimum of 15 minute intervals;
- blood pressure and pulse must be taken and recorded preoperatively and throughout the sedation period at appropriate intervals, not greater than every 15 minutes;
- respiration.

4. A sedation record must be kept which includes the recording of vital signs as listed above.

5. Alarm settings and their audio component on monitoring equipment must be used at all times.

6. The patient may be discharged once he/she shows signs of progressively increasing alertness and has met the following criteria:
- conscious and oriented
- vital signs are stable
- ambulatory

7. The patient must be discharged to the care of a responsible adult.

8. Written post-sedation instructions must be given and explained to both the patient and accompanying adult. The patient must be instructed to not drive a vehicle, operate hazardous machinery or consume alcohol for a minimum of 18 hours, or longer if drowsiness or dizziness persists.

9. If a reversal agent is administered before discharge criteria have been met, the patient must be monitored beyond the expected duration of action of the reversal agent to guard against re-sedation.

In cases where the dentist has determined that the use of a blood pressure cuff and/or pulse oximeter would be an impediment to the management of an individual patient, and the patient is clearly conscious throughout the procedure, a decision may be made not to use these monitors. In these isolated cases, a notation explaining the reason for not using these monitors must be recorded in the chart. Furthermore, these monitors (pulse oximeter, stethoscope and sphygmomanometer) must be present in the office and readily available for use.

3. Sedation Equipment

Emergency equipment and drugs must be available at all times. Drugs must be current and stored in readily identifiable and organized fashion (i.e. labelled trays or bags). All automated monitors must receive regular service and maintenance by qualified personnel according to the manufacturer's specifications, or annually, whichever is more frequent. **A written record of this annual maintenance/servicing must be kept on file for review by RCDSO as required.**

It is the dentist's responsibility to ensure that the dental office in which sedation is being performed is equipped with the following:
- portable apparatus for intermittent positive pressure resuscitation
- pulse oximeter
- stethoscope and sphygmomanometers of appropriate sizes
- full face masks of appropriate sizes and connectors
- portable auxiliary systems for light, suction and oxygen
- current drugs for management of emergencies, including:
  - oxygen (an E-size cylinder is required)
  - epinephrine
  - nitroglycerin
  - parenteral diphenhydramine

- salbutamol
- flumazenil (if a benzodiazepine is administered)
- naloxone (if an opioid is administered)
- acetylsalicylic acid (ASA, non-enteric coated)

2. PARENTERAL CONSCIOUS SEDATION

Parenteral conscious sedation may be accomplished using any one of the following routes of administration: intravenous, intramuscular, subcutaneous, submucosal or intra-nasal. For the purposes of this document, these standards also apply when the rectal route of administration is utilized.

In addition to the General Standards, this section outlines standards specific to any conscious sedation technique utilizing parenteral conscious sedation.

Additional Professional Responsibilities

1. All dentists administering parenteral conscious sedation must be registered with RCDSO to do so.

2. All facilities where parenteral conscious sedation is administered must have a permit from RCDSO. Such permit will be granted subject to training and conformance with all aspects of the Standard and subject to satisfactory on-site inspections and evaluation by RCDSO.

3. The following training is required:

- Dentists who qualify for the administration of deep sedation and general anesthesia, as outlined in Part II of this document.
- If not qualified for the administration of deep sedation or general anesthesia, then the following training is required:
  Successful completion of a course of instruction in parenteral conscious sedation that is held where adequate facilities are available for proper patient care, including drugs and equipment for the handling of emergencies and for which a Facility Permit has been issued by RCDSO and meeting the didactic and clinical requirements outlined below.

  A certificate or other evidence of satisfactory completion of the course and a description of the program signed by the course director must be submitted to RCDSO for consideration. Completion of such a course will be entered onto the dentist's record.

Didactic requirement: The training shall include a minimum of 40 hours of lecture and seminar time presented by dental anesthesiologists, dentists/dental specialists formally trained at the post-doctoral level in anesthesia and sedation as they apply to dentistry or physicians formally trained in anesthesia. Dentists in a hospital internship or general practice residency program, recognized by RCDSO, may be given credit for one-half of this didactic requirement, provided that documentation of formal training is obtained from the program director.

Clinical Requirement: The training shall include supervised application of parenteral conscious sedation concurrent with dental treatment, performed on a minimum of 20 patients. Active participation in the above is required. Observation alone is not sufficient.

Documented experience of **EITHER**

- the equivalent of a 4-week rotation in the anesthesia department of a teaching hospital, with active participation in the administration of general anesthesia, including venipuncture, airway maintenance and endotracheal intubation, must also be included in the training; **OR**
- evidence of successful completion of a provider course in Advanced Cardiac Life Support (ACLS) or, for those providing care for patients under the age of 12 years, training in Paediatric Advanced Life Support (PALS); **OR**
- evidence of successful completion of an appropriate course in airway management.

4. Parenteral administration of a single sedative drug is a prudent approach to moderate conscious sedation. Intravenous titration of a benzodiazepine alone may

be used by those with the training specified immediately above. Only those dentists with additional formal training as outlined below may use more than a single agent. Otherwise no additional drugs with sedative properties (e.g. opioids, anti-histamines) should be administered by any route. Non-sedative agents may be administered as deemed appropriate.

Other than the single parenteral sedative, additional sedative agents should not be used by any route of administration unless the dentist

- qualifies for the administration of deep sedation or general anesthesia, as outlined in Part II of this document; **OR**
- received approval from RCDSO prior to December 31, 2004.

5. Dentists administering parenteral general anesthetic drugs, such as short-acting barbiturates, ketamine or propofol, must qualify for and comply within the standards listed in Part II, Deep Sedation and General Anesthesia.

6. Preoperative instructions must be given in writing to the patient or responsible adult. Patients should be given instructions regarding the minimum duration of fasting prior to appointments that is consistent with the following minimum requirements:

- 8 hours after a meal that includes meat, fried or fatty foods;
- 6 hours after a light meal (such as toast and a clear fluid), or after ingestion of infant formula or nonhuman milk;
- 4 hours after ingestion of breast milk; and
- 2 hours after clear fluids (such as water, fruit juices without pulp, carbonated beverages, clear tea, and black coffee, but NOT alcohol).

Possible exceptions to this are usual medications or preoperative medications which may be taken as deemed necessary by the dentist.

To avoid confusion, some dentists may wish to simplify their preoperative instructions to patients regarding fasting requirements. For example, patients might be instructed not to have any solid food for a minimum of eight hours, and not to have any fluids for a minimum of two hours, prior to the appointment. Such instructions would be consistent with the minimum fasting requirements.

7. Consent must be obtained prior to the administration of any parenteral sedative.

8. The patient must never be left unattended following administration of the sedative until fit for discharge.

9. Anesthetic and monitoring equipment must conform to current appropriate standards for functional safety.

10. A dentist qualified for this sedative technique and responsible for the patient must not leave the facility until that patient is fit for discharge.

THE SEDATION TEAM

Parenteral conscious sedation for ambulatory dental patients must be administered through the combined efforts of the sedation team. The use of a sedation team allows the qualified dentist to provide parenteral conscious sedation services simultaneously with dental procedures. The sedation team shall consist of the following individuals:

The **dentist**, who is directly responsible for the sedation, the sedation team, and the dental procedures.

The **sedation assistant**,* who must be a nurse currently registered with the College of Nurses of Ontario in the general class in the RN category, a respiratory therapist currently registered with the College of Respiratory Therapists of Ontario, or a dentist or physician currently registered in Ontario. In addition, the sedation assistant must maintain current BLS certification (CPR Level HCP).

It is the responsibility of the dentist that the sedation assistant is adequately trained to perform their duties. The dentist must ensure this assistant has or develops the skills necessary for his/her responsibilities as described elsewhere in this document. His/her primary function is to provide assistance under the direction of the dentist by:

- assessing and maintaining a patent airway
- monitoring vital signs
- recording appropriate records
- venipuncture
- administering medications as required
- assisting in emergency procedures

The **operative assistant**, whose primary function is to keep the operative field free of blood, mucous and debris.

The **recovery supervisor*** who, under the dentist's supervision, has the primary function of supervising and monitoring patients in the recovery area, as well as determining, under the direction and responsibility of the dentist, if the patient meets the criteria for discharge, as outlined elsewhere in this document.

This person must have the same qualifications as described under sedation assistant. The sedation assistant may act as recovery supervisor if not required concurrently for the other duties. One cannot perform both duties simultaneously.

> ** Where there is a separate dentist or physician solely providing the sedation, then a sedation assistant or recovery supervisor is not required, provided that this individual fulfills these duties.*

The **office assistant** whose function is to attend to office duties so the sedation team is not disturbed.

NOTE: The sedation team is composed of a minimum of 3 individuals, who must be in the operatory at all times during the administration of parenteral conscious sedation.

Dentists, who use the services of a visiting dentist or physician anesthetist, share the responsibility of complying with the Standard. However, the ultimate responsibility rests with the permit holder to ensure that:

- the visiting dentist or physician anesthetist is registered with RCDSO to administer parenteral conscious sedation;
- the visiting dentist or physician anesthetist has no term, condition or limitation on his or her certificate of registration with his or her respective regulatory College, relevant to the administration of sedation or general anesthesia; and
- all required emergency and other equipment is available and emergency drugs are on-site and current.

With the exception of oxygen, EITHER the permit holder OR the visiting dentist / physician anesthetist MUST provide all required emergency equipment and drugs. The shared provision of emergency equipment and drugs is NOT allowed.

OFFICE PROTOCOL AND FACILITIES

The facility must permit adequate access for emergency stretchers and have auxiliary powered backup for suction, lighting and monitors for use in the event of a power or system failure.

1. Patient Selection

An adequate, clearly recorded current medical history, including present and past illnesses, hospital admissions, current medications and dose, allergies (in particular to drugs), and a functional inquiry, along with an appropriate physical examination must be completed for each patient and must form a permanent part of each patient's record. For medically compromised patients, consultation with their physician may be indicated. This assessment should be consistent in content with Appendix I.

The patient's ASA Classification (see Appendix II) and risk assessment must then be determined. These findings will be used to determine the appropriate facility and technique used.

2. Sedation Protocol

1. The medical history must be reviewed for any changes, at each sedation appointment. Such review must be documented in the permanent record.

2. The patient must have complied with the minimum duration of fasting prior to appointments that is consistent with the following minimum requirements:

- 8 hours after a meal that includes meat, fried or fatty foods;
- 6 hours after a light meal (such as toast and a clear fluid), or after ingestion of infant formula or nonhuman milk;
- 4 hours after ingestion of breast milk; and
- 2 hours after clear fluids (such as water, fruit juices without pulp, carbonated beverages, clear tea, and black coffee, but NOT alcohol).

Possible exceptions to this are usual medications or preoperative medications which may be taken as deemed necessary by the dentist.

To avoid confusion, some dentists may wish to simplify their preoperative instructions to patients regarding fasting requirements. For example, patients might be instructed not to have any solid food for a minimum of eight hours, and not to have any fluids for a minimum of two hours, prior to the appointment. Such instructions would be consistent with the minimum fasting requirements.

3. Laboratory investigations may be used at the discretion of the dentist.

4. Clinical observation must be supplemented by the following means of monitoring throughout the sedation administration:
- continuous pulse oximeter monitoring of oxyhemoglobin saturation, recorded at a minimum of five minute intervals;
- blood pressure and pulse must be taken and recorded preoperatively and throughout the sedation period at appropriate intervals, not greater than every five minutes;
- respiration.

5. A sedation record must be kept consistent with Appendix IV.

6. When intravenous sedation is used, an intravenous needle or indwelling catheter must be *in situ* and patent at all times during the procedure. An intermittent or continuous fluid administration must be used to ensure patency.

7. Alarm settings and their audio component on monitoring equipment must be used at all times.

3. Recovery Protocol

1. As described below, recovery accommodation and supervision is **mandatory** when parenteral sedation is administered.

2. The recovery area or room shall be used to accommodate the post-sedation patient from the completion of the procedure until the patient meets the criteria for discharge. Oxygen and appropriate suction and lighting must be readily available. The operatory can act as a recovery room.

3. A sufficient number of such recovery areas must be available to provide adequate recovery time for each case. Caseload must be governed accordingly.

4. Continuous supervision and appropriately recorded monitoring by the recovery supervisor must occur throughout the recovery period, until the patient meets the criteria for discharge.

5. The patient may be discharged once he/she shows signs of progressively increasing alertness and has met the following criteria:
- conscious and oriented
- vital signs are stable
- ambulatory

6. The patient must be discharged to the care of a responsible adult.

7. Written post-sedation instructions must be given and explained to both the patient and accompanying adult. The patient must be instructed to not drive a vehicle, operate hazardous machinery or consume alcohol for a minimum of 18 hours, or longer if drowsiness or dizziness persists.

8. If a reversal agent is administered before discharge criteria have been met, the patient must be monitored beyond the expected duration of action of the reversal agent to guard against re-sedation.

4. Sedation Equipment

Emergency equipment and drugs must be available at all times. Drugs must be current and stored in readily identifiable and organized fashion (i.e labelled trays or bags). All automated monitors must receive regular service and maintenance by qualified personnel according to the manufacturer's specifications, or annually, whichever is more frequent. **A written record of this annual maintenance/ servicing must be kept on file for review by RCDSO as required.**

It is the dentist's responsibility to ensure that the dental office in which sedation is being performed is equipped with the following:

- portable apparatus for intermittent positive pressure resuscitation
- pulse oximeter
- stethoscope and sphygmomanometers of appropriate sizes
- tonsil suction (Yankauer) adaptable to the suction outlet
- full face masks of appropriate sizes and connectors
- adequate selection of endotracheal tubes or laryngeal mask airways and appropriate connectors
- laryngoscope with an adequate selection of blades, spare batteries and bulbs
- Magill forceps
- adequate selection of oral airways
- portable auxiliary systems for light, suction and oxygen
- apparatus for emergency tracheotomy or cricothyroid membrane puncture
- needles - IV
- current drugs for management of emergencies, including:
  - oxygen (an E-size cylinder is required)
  - epinephrine
  - nitroglycerin
  - parenteral diphenhydramine
  - salbutamol
  - parenteral vasopressor (e.g. ephedrine)
  - parenteral atropine
  - parenteral corticosteroid
  - flumazenil
  - naloxone (if an opioid is administered)
  - intravenous fluids
  - acetylsalicylic acid (ASA, non-enteric coated)

Part II – Deep Sedation and General Anesthesia

DEFINITION

Deep sedation is a controlled state of depressed consciousness, accompanied by partial loss of protective reflexes, including inability to respond purposefully to verbal command.

General anesthesia is a controlled state of unconsciousness accompanied by partial or complete loss of protective reflexes including inability to maintain an airway independently and respond purposefully to physical stimulation or verbal command.

These states therefore apply to any technique that has depressed the patient beyond conscious sedation, as defined in Part I. Any technique leading to these conditions in a patient, including neuroleptanalgesia/anesthesia or dissociative anesthesia, regardless of route of administration, would fall within the following standards.

ADDITIONAL PROFESSIONAL RESPONSIBILITIES

In addition to the General Standards listed in Part I, the following responsibilities apply:

1. All dentists and physicians administering deep sedation or general anesthesia must be registered with RCDSO to do so.

2. All facilities where deep sedation or general anesthesia is administered must have a permit from RCDSO. Such permit will be granted subject to training and conformance with all aspects of the Standard and subject to satisfactory onsite inspections and evaluation by RCDSO.

3. Deep sedation or general anesthesia must only be performed in the dental office by a professional qualified according to the following standards.

- Dentists who hold a specialty certificate in Dental Anesthesiology in Ontario.
- Dentists who have successfully completed a post-graduate anesthesia program in a university and/or teaching hospital over a minimum of 24 consecutive months. The program must have specifically evaluated and attested to the competency of the individual.
- Dentists who had successfully completed a post-graduate anesthesia program in a university and/or teaching hospital over a minimum of 12 consecutive months prior to 1993 and have continued to practise these modalities since that time. The program must have specifically evaluated and attested to the competency of the individual.
- Dentists who have successfully completed a formal post-graduate program in oral and maxillofacial surgery suitable for certification in the Province of Ontario, incorporating adequate training in anesthesia, such that the individual competence has been specifically evaluated and attested to.
- Physicians currently registered with the College of Physicians and Surgeons of Ontario (CPSO) who can provide evidence satisfactory to RCDSO that they hold a designation as a specialist in anesthesia with the Royal College of Physicians and Surgeons of Canada (RCPSC) **OR** one of the following:
  - Completion of a 12-month rotation in a program accredited by the College of Family Physicians of Canada (CFPC) under the category of "Family Medicine Anesthesia".

- Recognition by the CPSO as a specialist in anesthesia.
- Satisfactory completion of all CPSO requirements for a physician requesting a change in their scope of practice **AND** active privileges to support similar procedures at a hospital.

Adherence to the Standard is a joint responsibility of such physicians and the treating dentist when anesthesia is provided in a dental office.

4. All dentists and physicians administering deep sedation or general anesthesia must provide evidence of successful completion of a provider course in ACLS. If providing care for patients under the age of 12 years, training in PALS is recommended.

5. When the operating dentist is not administering the anesthetic, he/she shares the responsibility to ensure that these standards are followed.

6. All facilities where deep sedation or general anesthesia is administered should have written policies and procedures, which should be reviewed with staff regularly.

7. Preoperative instructions must be given in writing to the patient or responsible adult. Patients should be given instructions regarding the minimum duration of fasting prior to appointments that is consistent with the following minimum requirements:

- 8 hours after a meal that includes meat, fried or fatty foods;
- 6 hours after a light meal (such as toast and a clear fluid), or after ingestion of infant formula or nonhuman milk;
- 4 hours after ingestion of breast milk; and
- 2 hours after clear fluids (such as water, fruit juices without pulp, carbonated beverages, clear tea, and black coffee, but NOT alcohol).

Possible exceptions to this are usual medications or preoperative medications which may be taken as deemed necessary by the dentist.

To avoid confusion, some dentists may wish to simplify their preoperative instructions to patients regarding fasting requirements. For example, patients might be instructed not to have any solid food for a minimum of eight hours, and not to have any fluids for a minimum of two hours, prior to the appointment. Such instructions would be consistent with the minimum fasting requirements.

8. Consent must be obtained prior to the administration of any parenteral sedative or general anesthetic.

9. Anesthetic and monitoring equipment must conform to current appropriate standards for functional safety.

10. The patient must never be left unattended by a dentist qualified for this sedative/anesthetic technique during the administration of the sedative or general anesthetic.

11. A dentist or physician qualified for this sedative/anesthetic technique and responsible for the patient must not leave the facility until that patient is fit for discharge.

THE ANESTHETIC TEAM

General anesthesia or deep sedation for ambulatory dental patients must be administered through the combined efforts of the anesthetic team. The use of an anesthetic team allows the qualified dentist to provide anesthesia services simultaneously with dental procedures. The anesthetic team shall consist of the following individuals:

The **dentist-anesthetist**, who is directly responsible for the anesthesia, the anesthetic team, and the dental procedures.

The **anesthetic assistant*** must be a nurse currently registered with the College of Nurses of Ontario in the general class in the RN category, a respiratory therapist currently registered with the College of Respiratory Therapists of Ontario, or a dentist or physician currently registered in Ontario. In addition, the anesthetic assistant must maintain current BLS certification (CPR Level HCP) as a minimum.

It is the responsibility of the dentist that the anesthetic assistant is adequately trained to perform his/her duties. The dentist must ensure this assistant has/or develops the skills necessary for his/her responsibilities, as described below. His/her primary function is to provide assistance, under the direction of the dentist, by:

- assessing and maintaining a patent airway
- monitoring vital signs
- recording appropriate records
- venipuncture
- administering medications as required
- assisting in emergency procedures

The **operative assistant**, whose primary function is to keep the operative field free of blood, mucous and debris.

The **recovery supervisor*** who, under the dentist's supervision, has the primary function of supervising and monitoring patients in the recovery area, as well as determining, under the direction and responsibility of the dentist, if the patient meets the criteria for discharge, as outlined below.

This person must have the same qualifications as described under Anesthesia Assistant. The anesthesia assistant may act as recovery supervisor if not required concurrently for the other duties. One cannot perform both duties simultaneously.

> ** Where there is a separate dentist-anesthetist or physician-anesthetist solely providing the deep sedation or general anesthetic, then an anesthetic assistant or a recovery supervisor is not required, provided that this individual fulfills these duties.*

The **office assistant** whose function is to attend to office duties so the sedation team is not disturbed.

NOTE: The anesthetic team is composed of a minimum of 3 individuals, who must be in the operatory at all times during the administration of general anesthesia or deep sedation.

Dentists, who use the services of a visiting dentist or physician anesthetist, share the responsibility of complying with the Standard. However, the ultimate responsibility rests with the permit holder to ensure that:

- the visiting dentist or physician anesthetist is registered with RCDSO to administer deep sedation or general anesthesia;
- the visiting dentist or physician anesthetist has no term, condition or limitation on his or her certificate of registration with his or her respective regulatory College, relevant to the administration of sedation or general anesthesia; and
- all required emergency and other equipment is available and emergency drugs are on-site and current.

With the exception of oxygen, EITHER the permit holder OR the visiting dentist / physician anesthetist MUST provide all required emergency equipment and drugs. The shared provision of emergency equipment and drugs is NOT allowed.

OFFICE PROTOCOL AND FACILITIES

The facility must permit adequate access for emergency stretchers and have auxiliary powered backup for suction, lighting and monitors for use in the event of a power or system failure.

1. Patient Selection

An adequate, clearly recorded current medical history, including present and past illnesses, hospital admissions, current medications and dose, allergies (in particular to drugs), and a functional inquiry, along with an appropriate physical examination must be completed for each patient and must form a permanent part of each patient's record, prior to the administration of deep sedation or general anesthesia. For medically compromised patients, consultation with their physician may be indicated. This assessment should be consistent in content with Appendix I.

The patient's ASA Classification (see Appendix II) and risk assessment must be determined. These findings will be used to determine the appropriate facility and technique to be used.

2. Anesthesia Protocol

1. The medical history must be reviewed for any changes at each deep sedation or general anesthetic appointment. Such review must be documented in the permanent record.

2. The patient must have complied with the minimum duration of fasting prior to appointments that is consistent with the following minimum requirements:

- 8 hours after a meal that includes meat, fried or fatty foods;
- 6 hours after a light meal (such as toast and a clear fluid), or after ingestion of infant formula or nonhuman milk;
- 4 hours after ingestion of breast milk; and
- 2 hours after clear fluids (such as water, fruit juices without pulp, carbonated beverages, clear tea, and black coffee, but NOT alcohol).

Possible exceptions to this are usual medications or preoperative medications which may be taken as deemed necessary by the professional responsible for the administration of the sedation or general anesthetic.

To avoid confusion, some dentists may wish to simplify their preoperative instructions to patients regarding fasting requirements. For example, patients might be instructed not to have any solid food for a minimum of eight hours, and not to have any fluids for a minimum of two hours, prior to the appointment. Such instructions would be consistent with the minimum fasting requirements.

3. Laboratory investigations may be used at the discretion of the dentist.

4. Clinical observation must be supplemented by the following means of monitoring performed at a minimum of five minute intervals throughout the deep sedation or general anesthetic administration:

- continuous pulse oximeter monitoring of oxyhemoglobin saturation
- blood pressure and pulse
- respiration
- continuous electrocardioscope monitoring
- if intubated or a laryngeal mask airway is used, monitoring by capnometry/capnography is required
- if intubated or a laryngeal mask airway is used, monitoring by oxygen analyzer is required
- if a volatile inhalational anesthetic agent is used to maintain anesthesia (e.g. isoflurane, sevoflurane, desflurane), an anesthetic agent analyzer is required

5. If triggering agents for malignant hyperthermia are being used (volatile inhalational general anesthetics or succinylcholine), measurement of temperature and appropriate emergency drugs, as outlined below, must be readily available.

6. An anesthetic record must be kept consistent with Appendix IV.

7. An intravenous needle or indwelling catheter must be *in situ* and patent at all time during the procedure. An intermittent or continuous fluid administration must be used to ensure patency.

8. Alarm settings and their audio component on monitoring equipment must be used at all times.

3. Recovery Protocol

1. As described below, recovery accommodation and supervision is mandatory where deep sedation or general anesthesia is administered.

2. The recovery area or room shall be used to accommodate the patient from the completion of the procedure until the patient meets the criteria for discharge. Oxygen and appropriate suction and lighting must be readily available. The operatory can act as a recovery room.

3. A sufficient number of such recovery areas must be available to provide adequate recovery time for each case. Caseload must be governed accordingly.

4. Continuous supervision and appropriately recorded monitoring by the recovery supervisor should occur throughout the recovery period, until the patient meets the criteria for discharge. In addition to continuous pulse oximetry, monitors must be immediately available for recovery use, including sphygmomanometer and electrocardioscope.

5. The patient may be discharged once he/she shows signs of progressively increasing alertness and has met the following criteria:

- conscious and oriented
- vital signs are stable
- ambulatory

6. The patient must be discharged to the care of a responsible adult.

7. Written post-sedation/anesthetic instructions must be given. The patient must be instructed to not drive a vehicle, operate hazardous machinery or consume alcohol for a minimum of 18 hours, or longer if drowsiness or dizziness persists.

8. If a reversal agent is administered before discharge criteria have been met, the patient must be monitored beyond the expected duration of action of the reversal agent to guard against re-sedation.

4. Deep Sedation/General Anesthetic Equipment

Emergency equipment and drugs must be available at all times. Drugs must be current and stored in readily identifiable and organized fashion (i.e labelled trays or bags). All anesthetic and monitoring equipment must receive regular service and maintenance by qualified personnel according to the manufacturer's specifications, or annually, whichever is more frequent. **A written record of this annual maintenance/servicing must be kept on file for review by RCDSO as required.**

1. Gas delivery systems used for the administration of nitrous oxide and oxygen must meet the following requirements:

- a nitrous oxide and oxygen gas delivery system that meets the requirements for such equipment as described in the previous section of this document under Minimal Sedation; **OR**
- a general anesthesia gas delivery system that conforms to CSA standards and:
  - must be equipped with connectors and tubing which allow use of a full face mask for resuscitative ventilation with 100% oxygen;
  - must have readily available a reserve supply of oxygen ready for immediate use. This should be portable, an "E" size cylinder as a minimum and attached with appropriate regulator, flowmeter and connectors as described previously;
  - must be equipped with a scavenging system installed per manufacturer's specifications.

2. If a vaporizer is fitted to the gas delivery system, then:

- It shall have an agent-specific, keyed filling device.
- The connection of the inlet and outlet ports of the vaporizer to the gas machine shall be such that an inadvertent incorrect attachment cannot be made.
- All vaporizer control knobs must open counterclockwise and be marked to indicate vapour concentration in volume percent. It must mark and lock the control in the "off" position.
- The vaporizer must be connected to the scavenging system. Where multiple vaporizers are used, an Interlock System must be installed.

3. If the patient is intubated or a laryngeal mask airway is used, then the anesthetic machine must be fitted with an oxygen analyzer.

4. It is the dentist's responsibility to ensure that the dental office in which deep sedation or general anesthesia is being performed is equipped with the following:

- portable apparatus for intermittent positive pressure resuscitation
- pulse oximeter
- stethoscope and sphygmomanometers of appropriate sizes
- tonsil suction (Yankauer) adaptable to the suction outlet
- full face masks of appropriate sizes and connectors
- adequate selection of laryngeal mask airways and appropriate connectors
- adequate selection of endotracheal tubes and appropriate connectors
- laryngoscope with an adequate selection of blades, spare batteries and bulbs
- Magill forceps
- adequate selection of oral airways
- portable auxiliary systems for light, suction, and oxygen

- apparatus for emergency tracheotomy or cricothyroid membrane puncture
- electrocardioscope
- defibrillator (either an automated external defibrillator [AED] or one with synchronous cardioversion capabilities)
- capnometer/capnograph, if endotracheal intubation or a laryngeal mask airway is used to administer general anesthesia
- current drugs for management of emergencies, including:
  - oxygen (an E-size cylinder is required)
  - epinephrine
  - nitroglycerin
  - parenteral diphenhydramine
  - salbutamol
  - parenteral vasopressor (e.g. ephedrine)
  - parenteral atropine
  - parenteral corticosteroid
  - flumazenil
  - naloxone
  - appropriate intravenous fluids
  - succinylcholine
  - parenteral amiodarone
  - parenteral beta-blocker
  - dantrolene, if triggering agents for malignant hyperthermia are being used (consistent with MHAUS guidelines)
  - acetylsalicylic acid (ASA, non-enteric coated)

APPENDIX I

Medical History and Patient Evaluation

An adequate, current, clearly recorded and signed medical history must be made for each patient. The history is part of the patient's permanent record. It forms a database upon which appropriate sedation or anesthetic modality is determined. The medical history must be kept current. This information may be organized in any format that each dentist prefers provided that the scope of the content contains the **minimum information described in this section**.

Vital Statistics

This includes the patient's full name, date of birth, sex, and the name of the person to be notified in the event of an emergency. In case of a minor or a mentally disadvantaged patient, the name of the parent or guardian must be recorded.

Core Medical History

The core medical history must fulfill the following two basic requirements:

- It must elicit the core medical information to enable the dentist to assign the correct ASA Classification (see Appendix II) in order to assess risk factors in relation to sedation or anesthetic choices.
- It must provide written evidence of a logical process of patient evaluation.

This core information should be a system-based review of the patient's past and current health status. It can be developed from RCDSO's sample medical history questionnaire, supplemented with questions relevant to the use of sedation or general anesthesia (e.g. family history of adverse anesthetic outcomes).

Core Physical Examination

A current, basic physical examination, suitable for determining information that may be significant to sedation and anesthesia and appropriate to the modality being used, must be carried out for each patient. At a minimum, all modalities of sedation or general anesthesia require the evaluation and recording of significant positive findings related to:

- general appearance, noting obvious abnormalities;
- an appropriate airway assessment;
- the taking and recording of vital signs, i.e. heart rate and blood pressure.

This can be carried out by most general practitioners and specialists.

If a more in-depth physical examination is required involving:

- auscultation (cardiac or pulmonary)
- examination of other physiologic systems, or,
- other assessments

This examination **must be performed** by a physician or by a dentist who has received formal training in a post-graduate anesthesiology program, or an oral and maxillofacial surgery program.

The core physical examination may include an order for and assessment of laboratory data if indicated.

APPENDIX II

American Society of Anesthesiology Physical Status Classification System

ASA I: A normal healthy patient

ASA II: A patient with mild systemic disease

ASA III: A patient with severe systemic disease that limits activity but is not incapacitating

ASA IV: A patient with incapacitating systemic disease that is a constant threat to life

ASA V: A moribund patient not expected to survive 24 hours with or without operation

ASA VI: A declared brain-dead patient whose organs are being removed for donor purposes

ASA E: Emergency operation of any variety; E precedes the number, indicating the patient's physical status

APPENDIX III

Characteristics of the Levels of Sedation and General Anesthesia

	MINIMAL SEDATION	MODERATE SEDATION	DEEP SEDATION	GENERAL ANESTHESIA
CONSCIOUSNESS	maintained	maintained	obtunded	unconscious
RESPONSIVENESS	to **either** verbal command **or** tactile stimulation	may require either one of or BOTH verbal command and tactile stimulation	response to repeated or painful stimuli	unarousable, even to pain
AIRWAY	maintained	no intervention required	intervention may be required	intervention usually required
PROTECTIVE REFLEXES	intact	intact	partial loss	assume absent
SPONTANEOUS VENTILATION	unaffected	adequate	may be inadequate	frequently inadequate
CARDIOVASCULAR FUNCTION	unaffected	usually maintained	usually maintained	may be impaired
REQUIRED MONITORING	basic	increased	advanced	advanced

APPENDIX IV

Anesthetic Record for Parenteral Conscious Sedation, Deep Sedation or General Anesthesia

An anesthetic/sedation record should contain the following information:

- patient name
- date of procedure
- verification of NPO status
- verification of accompaniment for discharge
- preoperative blood pressure, heart rate, and oxygen saturation
- ASA status
- names of all drugs administered
- doses of all drugs administered
- time of administration of all drugs
- if used: intravenous type, location of venipuncture, type and amount of fluids administered
- list of monitors used
- record of systolic and diastolic blood pressure, heart rate, oxygen saturation, at a minimum of five minute intervals. If the monitors used provide an automated printout, this printout may be attached in lieu of handwritten recording of these signs.
- time of the start and completion of the administration of the general anesthetic/sedation
- time of the start and completion of the administration of the dental procedure
- recovery period
- discharge criteria met: oriented, ambulatory, vital signs stable (record of blood pressure, heart rate, oxygen saturation)
- time of discharge
- name of professional responsible for the case
- a notation of any complication or adverse reaction

APPENDIX V

Guidelines, Standards and Other Official Statements Available on the Internet

Anesthesia organizations

American Society of Anesthesiologists
www.asahq.org/publicationsAndServices/sgstoc.htm

Association of Anaesthetists of Great Britain and Ireland
www.aagbi.org/publications

Australian and New Zealand College of Anaesthetists
www.anzca.edu.au/resources

Australian Society of Anaesthetists
www.asa.org.au

Canadian Anesthesiologists' Society
www.cas.ca

European Society of Anaesthesiology
www.euroanesthesia.org

European Society for Paediatric Anaesthesiology
www.euroespa.org/home.html

Royal College of Anaesthetists
www.rcoa.ac.uk

Société Française d'Anesthésie et de Réanimation
www.sfar.org

Society for Pediatric Anesthesia
www.pedsanesthesia.org

World Federation of Societies of Anaesthesiologists
www.anaesthesiologists.org

Other official organizations

American Dental Association
www.ada.org

American Academy of Pediatric Dentistry
www.aapd.org/media/Policies_Guidelines/G_Sedation.pdf

Canadian Institute for Health Information
www.cihi.ca

Canadian Standards Association
www.csa.ca

College of Physicians and Surgeons of Ontario
www.cpso.on.ca/

Health Canada
www.hc-sc.gc.ca

International Electrotechnical Commission
www.iec.ch

International Organization for Standardization
www.iso.org

Malignant Hyperthermia Association of the United States
www.mhaus.org/mhaus-faqs-healthcare-professionals/stocking-mh-cart/

Public Health Agency of Canada
www.phac-aspc.gc.ca

Royal College of Physicians and Surgeons of Canada
www.rcpsc.medical.org

Patient safety organizations

Anesthesia Patient Safety Foundation
www.apsf.org

Australian Patient Safety Foundation
www.apsf.net.au

Canadian Patient Safety Institute
www.patientsafetyinstitute.ca

National Patient Safety Foundation (USA)
www.npsf.org

Royal College of
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A SAMPLE ANESTHETIC RECORD FORM IS SUPPLIED HERE AS AN EXAMPLE ONLY. THE USE OF THIS PARTICULAR FORM IS NOT MANDATORY. EACH PRACTITIONER MAY DETERMINE THE FORMAT OF HIS/HER OWN RECORD. THE PRACTITIONER SHOULD USE A FORM THAT, AS A MINIMUM, CONTAINS THE INFORMATION LISTED IN APPENDIX IV, IN A FORMAT THAT IS CLEAR AND READILY UNDERSTOOD.

Sample Anesthetic Record

PATIENT'S NAME **AGE** **DATE**

MEDICAL HISTORY REVIEWED

ALLERGIES **MEDICATIONS**

NPO **ACCOMPANIED BY RESPONSIBLE ADULT**

Pre-Op BP Pre-Op HR Pre-Op SpO_2 **ASA CLASSIFICATION** I II III IV E

PREMEDICATION **TIME**

IV ANGIO or BF **GAUGE** **SITE** R L DOH ACF FA OTHER

FLUIDS TYPE VOLUME

MONITORS PULSE OXIMETER BP ECG OTHER

DRUGS	**TIME**	0	15	30	45	0	15	30	45	0	15	30	45
O_2 (1/MIN)													
N_2O (1/MIN)													
LOCAL ANES.	**ML OF**												

TIME

START ANES.

START PROCEDURE

END PROCEDURE

END ANES.

TO RECOVERY ROOM

DISCHARGE CRITERIA

ORIENTED

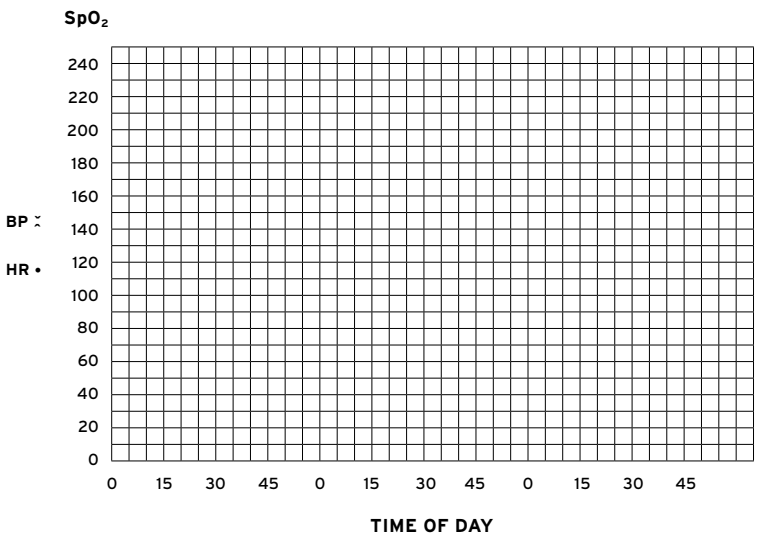
VITAL SIGNS STABLE

BP HR SpO_2

AMBULATORY

DISCHARGE TIME

IN THE COMPANY OF



NOTES

ANESTHETIST

06/14_3629

[redacted] [redacted]

APPENDIX 5

Sedation and Anesthesia Authorization

Authorization	
Highest Modality Authorized to Administer:	Parenteral Conscious Sedation - Single Sedative
Visiting Provider:	No
Last Inspection Date:	

Visiting Provider – a qualified member of the College, or a physician (who is a current member of the College of Physicians and Surgeons of Ontario and who is registered in the Out-of-Hospital Premises Program), who provides, and has present at all times, all the necessary equipment and emergency drugs for the administration of sedation and/or general anesthesia.

Sedation and Anesthesia Facility

Practice Address:	[redacted]	
Practice Telephone #:	[redacted]	
Permit Status:	Current	
Type of Permit:	Type A	
Highest Modality Administered:	Parenteral Conscious Sedation	
Last Inspection Date:	May 18, 2011	
Deficiencies Observed:	Inadequate patient and/or sedation/anaesthetic records	No verification of appropriate fasting period , Responsible adult accompaniment for patient, ASA status classification, Blood pressure, heart rate, and oxygen saturation at appropriate intervals

Type A Facility Permit – where all the necessary equipment and emergency drugs for the administration of sedation and/or general anesthesia are provided by the facility and are present at all times.

Type B Facility Permit - where all the necessary equipment and emergency drugs for the administration of sedation and/or general anaesthesia are provided by the Visiting Practitioner, and are present at all times during the procedure.

This information was obtained from the Register section of the website of the Royal College of Dental Surgeons of Ontario (www.rcdso.org) Date:10/11/2014 4:40:14 PM

WHAT SHOULD I DO IF I HAVE A PROBLEM WITH MY DENTIST?

Patients are encouraged to discuss the problem with their dentist. If you still have concerns, please contact us.

Royal College of Dental Surgeons of Ontario

Ensuring Continued Trust

THE ROYAL COLLEGE OF DENTAL SURGEONS OF ONTARIO (RCDSO) is one of the province's over 20 health care regulatory colleges. We are called a college, but we are not a school. We are a regulatory body established by a provincial law called the *Regulated Health Professions Act, 1991* (RHPA) to protect your right to safe, effective and ethical dental care.

As the regulatory college for dentists, one of our important responsibilities is to address concerns about the conduct or practice of dentists. We have been given legal powers by the provincial government to investigate any complaint we receive, whether from a patient or another person. These powers cover dentists in all branches of dentistry, including general dentistry and specialty practice. This is perhaps one of the most significant protections that consumers have under the RHPA.

We take this responsibility very seriously. Every complaint about a dentist that is received by the College is thoroughly and objectively investigated. Dentists in Ontario are accountable to us for the way they perform their work. The formal process for investigation of a complaint is outlined in the legislation.

The College's philosophy is to work through a responsive and respected process that is perceived by both the profession and the public as fair, transparent and accessible.

How do I make a complaint?

You can discuss your concerns with us at any time. If you decide to make a formal complaint you need to write or e-mail us, or to record your complaint on audio tape, videotape, film, computer disc or some other medium. We cannot accept a complaint by phone.

We will need to have the following information:

- a clear statement that you are submitting a complaint;
- the full name of the dentist;
- as much detail as possible about your concerns;
- the names of any other dentists, health care practitioners or other persons that may have relevant information;
- your daytime phone number and your mailing address.

Is there a time limit for making a complaint?

No, you can make a complaint at any time.

Do I need a lawyer?

No, however, you are entitled to have legal representation if you wish.

Who deals with my complaint?

The College's Inquiries, Complaints and Reports (ICR) Committee will consider your complaint. The mandate of this Committee is outlined in provincial law. The Committee members include both dentists and members of the public who are appointed by the provincial government.

How does the process begin?

We investigate all complaints. When the College receives your complaint, you will be contacted by College staff who will explain the complaint process and answer any questions you may have. A copy of your complaint will then be forwarded to the dentist. Then the dentist will be asked to submit a written response to the College. You will have an opportunity to review the dentist's response and to make any further comments.

What happens next?

Your complaint is fully and impartially investigated by College staff, with the investigation limited to your specific complaint. This investigation includes written submissions from both you and the dentist. Any other dentists or health care practitioners who have treated you or consulted on your treatment may be contacted. An investigator may also formally get in touch with any third-party insurers involved, such as your insurance company, and may interview witnesses.

As part of this process, we usually request relevant records, x-rays, dental charts and other information from the dentist. The dentist has a duty to co-operate fully with the investigation. The ICR Committee may also engage a dental expert to help it.

You are kept informed at every step of the process.

After the investigation is complete, and all the supporting documentation is received, College staff will present the complete file of information to the ICR Committee for its review. The Committee then makes a decision based on the documentation placed before it.

? How will the ICR Committee deal with my complaint?

There are a number of options available to the Committee under the *Regulated Health Professions Act, 1991* (RHPA). The Committee can:

- Take no action if the dentist's conduct and/or actions meet reasonable and acceptable standards of practice, or if there is insufficient information for the Committee to take action.

- Require the dentist to appear to be cautioned about his/her practice or conduct. The ICR Committee will discuss its concerns with the dentist and make suggestions that it believes the dentist must take to avoid future difficulties.

- Provide guidance to the dentist on how to improve his/her practice. For example, sometimes the dentist will enter into an agreement with the College to undertake remedial educational programs or upgrading.

- Require the dentist to complete a specified continuing education or remediation program.

- Refer the dentist to another panel of the ICR Committee for investigation of possible mental or physical health concerns that might interfere with the dentist's ability to practise.

- Refer the matter to the Discipline Committee to hear specified allegations of professional misconduct or incompetence.

If a panel of the Discipline Committee, during a formal and public hearing, finds that a dentist has committed an act of professional misconduct, it may:

- suspend or revoke the dentist's licence;
- impose terms, conditions and limitations on the dentist's licence;
- reprimand the dentist;
- require the dentist to pay a fine;
- publish a summary of the matter.

? What happens once a decision is made?

Once the panel of the ICR Committee reaches a decision, both you and the dentist will be sent a copy

of the decision. College staff are not members of the Committee, nor are they involved in any way in the Committee's decision-making.

? Is there an appeal process?

In most cases, there is an appeal process available that provides additional protection for both the patient and the dentist. On request of either party, an arm's-length provincial board called the Health Professions Appeal and Review Board may review the Committee's decision.

? Can the ICR Committee award money or damages?

The law governing health professionals only permits the Committee to make a decision about the dentist's conduct. The Committee cannot, by law, award compensation, damages, or refunds of any kind. Only the courts have that authority.

If you are considering suing a dentist for compensation as a result of negligence or malpractice, the law requires that legal action must be commenced within two years after you knew, or ought to have known, the facts on which your suit is based. Your legal advisor can answer any questions that you might have about your rights to sue a dentist.

Are the decisions of the ICR Committee available to the public?

All information relating to the investigation and resolution of a complaint is held in the strictest confidence, as required by current legislation.

Is there another option instead of a full investigation?

The College offers a voluntary and confidential program for the resolution of some complaints as an alternative to the formal complaints process. It is called alternative dispute resolution (ADR). It provides an opportunity for you and the dentist to reach a resolution through a mediation process.

Is ADR always an option?

ADR is not suitable for all complaints. College staff will decide if your complaint is appropriate for ADR. Then both you and the dentist must agree to participate for ADR to proceed.

How does ADR work?

A facilitator will meet with you and the dentist to assist you in communicating and negotiating more

effectively. The facilitator is a neutral person who is not a member of the College's staff or of a College committee. The College pays for any reasonable costs and expenses of the facilitator.

The facilitator's goal is to work with you and the dentist in a respectful and confidential way to simplify the issues, and enhance your ability to reach a resolution that is agreeable to both of you.

ADR is usually much faster than the complaints process. There is also usually less correspondence and documentation involved. For some, these factors may be an important consideration. However, there is no right of appeal of the final resolution.

If, for some reason, the ADR process does not result in a resolution, your complaint will be processed in the usual way through the normal complaints process.

All ADR resolutions must be approved by the ICR Committee.

Patients must be able to put their trust in dentists. Dentists themselves rank this as one of the profession's highest priorities. In fact, the College is totally funded by the fees paid by each dentist in the province.

Dentists believe that it is important for the profession to demonstrate through its honesty and integrity that they deserve that trust.

How do I contact the College?

You can contact the College in a number of ways.

MAIL

Royal College of Dental Surgeons of Ontario
6 Crescent Road
Toronto, ON M4W 1T1
Attention: Complaints

PHONE

416-961-6555
1-800-565-4591

FAX

416-961-5814

E-MAIL

complaints@rcdso.org

Royal College of
Dental Surgeons of Ontario

Ensuring Continued Trust

6 Crescent Road
Toronto, ON Canada M4W 1T1

T: 416-961-6555 F: 416-961-5814
Toll-Free: 1-800-565-4591 www.rcdso.org

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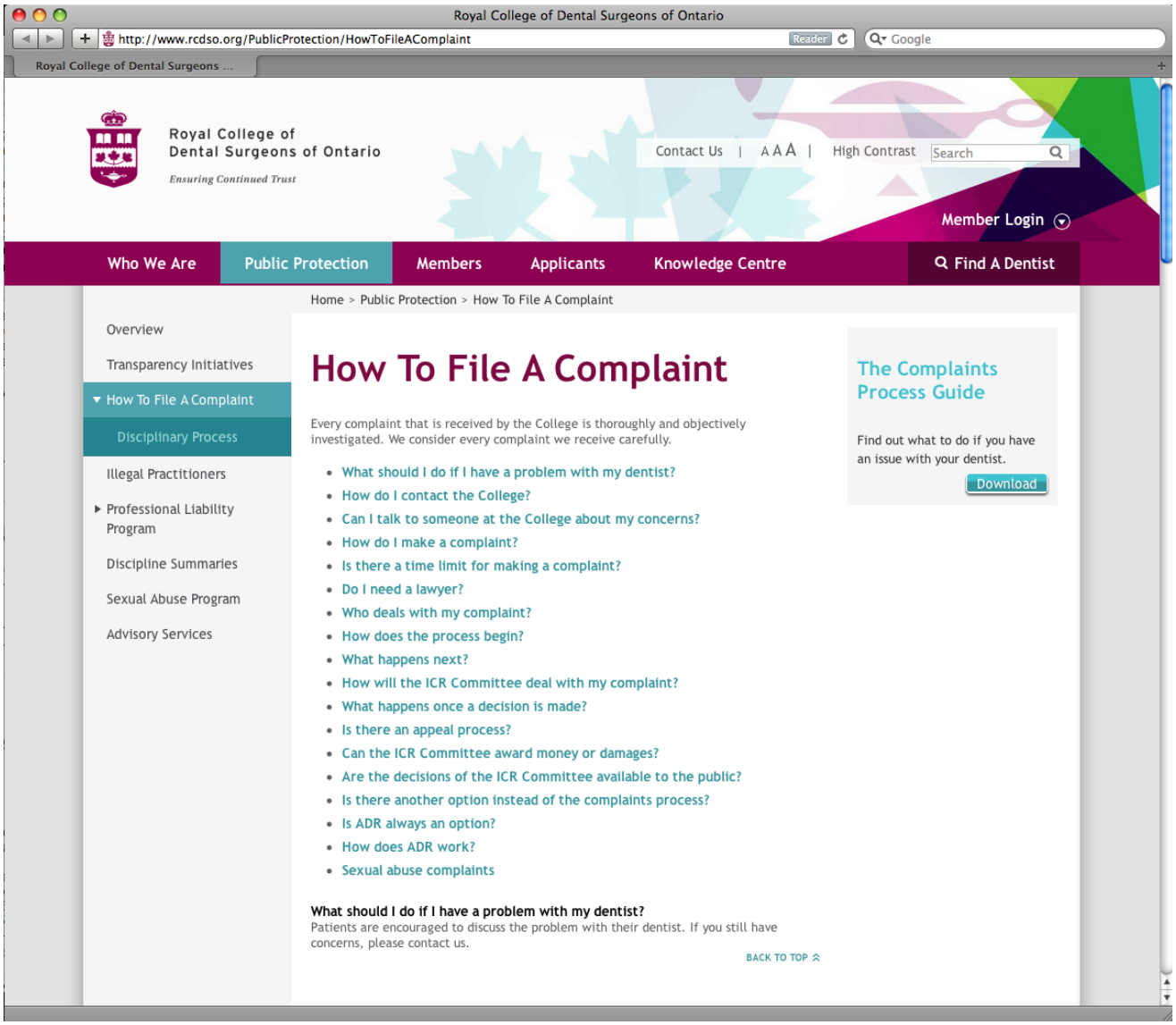
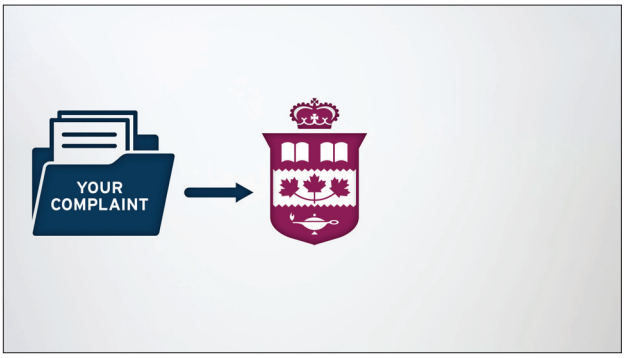

Royal College of Dental Surgeons of Ontario
http://www.rcdso.org/PublicProtection/HowToFileAComplaint
Google
Royal College of Dental Surgeons ...
Royal College of
Dental Surgeons of Ontario
Ensuring Continued Trust
Contact Us | AAA | High Contrast
Search
Member Login
Who We Are
Public Protection
Members
Applicants
Knowledge Centre
Find A Dentist
Home > Public Protection > How To File A Complaint
Overview
Transparency Initiatives
How To File A Complaint
Disciplinary Process
Illegal Practitioners
Professional Liability Program
Discipline Summaries
Sexual Abuse Program
Advisory Services
How To File A Complaint
Every complaint that is received by the College is thoroughly and objectively investigated. We consider every complaint we receive carefully.
What should I do if I have a problem with my dentist?
How do I contact the College?
Can I talk to someone at the College about my concerns?
How do I make a complaint?
Is there a time limit for making a complaint?
Do I need a lawyer?
Who deals with my complaint?
How does the process begin?
What happens next?
How will the ICR Committee deal with my complaint?
What happens once a decision is made?
Is there an appeal process?
Can the ICR Committee award money or damages?
Are the decisions of the ICR Committee available to the public?
Is there another option instead of the complaints process?
Is ADR always an option?
How does ADR work?
Sexual abuse complaints
What should I do if I have a problem with my dentist?
Patients are encouraged to discuss the problem with their dentist. If you still have concerns, please contact us.
BACK TO TOP
The Complaints Process Guide
Find out what to do if you have an issue with your dentist.
Download

APPENDIX 8

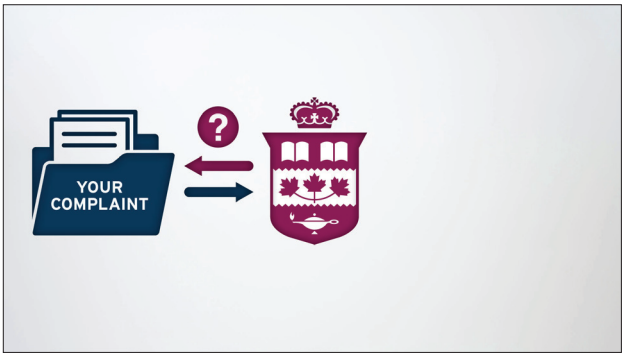
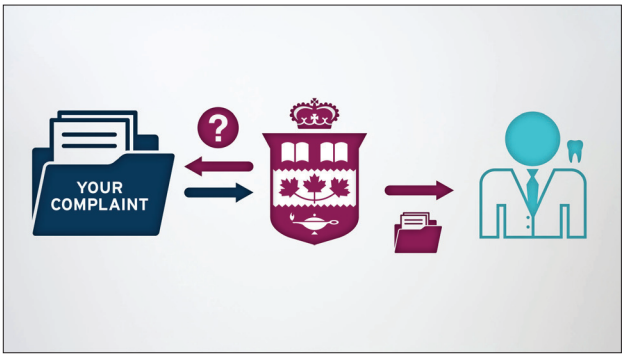
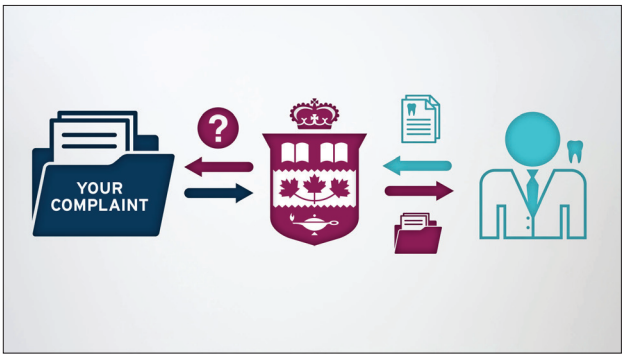
ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
Introduction Music		Burgundy bar slides in, along with lantern from left, and maple leaves from right. Logo animates on the screen.
		Lantern and leaves slide out of screen, and book slides in from left, crown from right. Title appears through animation.
As the regulatory college for dentists, one of our responsibilities is to address concerns about the conduct or practice of dentists. We have been given legal powers by the provincial government to investigate any complaint we receive whether from a patient or another person.		Host full screen.
Our philosophy is to work through a responsive and respected process that is perceived by both the profession and the public as fair, transparent and accessible.		Host on left side of screen. Scale icon appears as words are spoken.

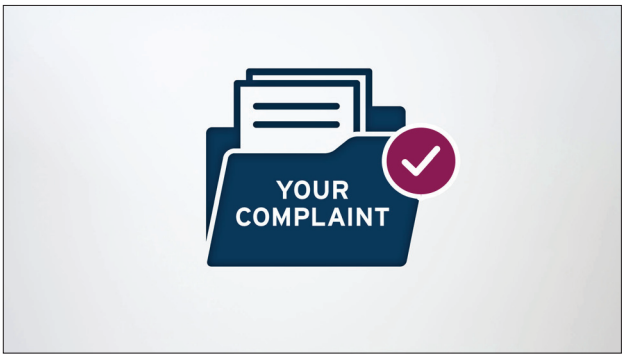
ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
Every complaint we receive about a dentist is thoroughly and objectively investigated. If you decide to make a formal complaint against a dentist, you need to write or email us, or record your complaint on audio tape, videotape, film, or some other medium. We cannot accept complaints by phone.		Scale animates out of screen. Icons with text appear one by one as host speaks.
When submitting your complaint, you will need to provide us with the following information: • a clear statement that you are submitting a complaint • the full name of the dentist • as much detail as possible about your concerns • the names of any other dentists, health care practitioners or other persons that may have relevant information • your name, daytime phone number and mailing address. We cannot accept anonymous complaints.		File folder appears with the words "Your Complaint". 5 item list appears with icons. Each item will shrink down and disappear into the "complaint" folder one by one as host speaks.
Once we receive your complaint,...		Complaints folder stays on screen. Arrow and crest appears as host speaks.

ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
...you will be contacted by College staff who will explain the complaint process in detail and answer any questions you may have.		Arrow with question mark icon appears and points to complaints folder.
A copy of your complaint is then forwarded to the dentist...		Arrow with folder icon and dentist icon appears as host speaks.
...who is asked to submit a written response to the College.		Report with another arrow appears as host speaks.
You will have an opportunity to review the dentist's response and to make any further comments.		Screen zooms into report icon and magnifying glass appears. Magniying glass scans over document and lines inside magnifying glass scroll as it pans down over page.

ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
All complaints are fully and impartially investigated by College staff and information relating to the investigation is held in the strictest confidence. The investigation includes written submissions from both you and the dentist.		Magnifying glass fades out. Screen zooms out and complaint folder and plus sign appear.
It may also include information from other dentists or healthcare practitioners who have treated you, information from dental insurers, or from other witnesses.		Folder and document shrink down and another document is added.
The College staff will attempt to gather all reasonable information and documentation that is relevant to your complaint.		The two documents will slide into the folder icon and disappear, bringing the complaints folder to the middle of the screen. Zooms in to the folder icon, and the burgandy checkmark appears.
Once the investigation concludes, the College's Inquiries, Complaints and Reports Committee will review all of the information and make a decision regarding your complaint.		Words appear on burgandy background.

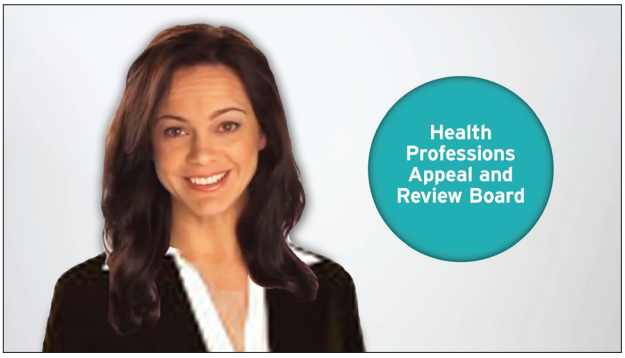
ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
The Committee members include both dentists and members of the public who are appointed by the provincial government.		Words shrink down and public and dentist icons appear one at a time to form a group.
The Committee has a number of options available under the legislation. It can: • Take no action • Require the dentist to appear to be cautioned • Provide guidance to the dentist on how to improve his/her practice • Require the dentist to complete a specified continuing education or remediation program • Refer the matter to the Discipline Committee		Words and group of people pan to the left. Bulleted list appears on the right side of the screen one by one as host is speaking.
Once the Inquiries, Complaints and Reports Committee reaches a decision,...		Bullets and Committee title fades out. Check mark icon appears above committee.
...both you and the dentist will be sent a written decision, which will include the panel's reasons for making the decision it did.		Dotted lines animate with document icon and lead to two circles with labels "you" and "dentist".

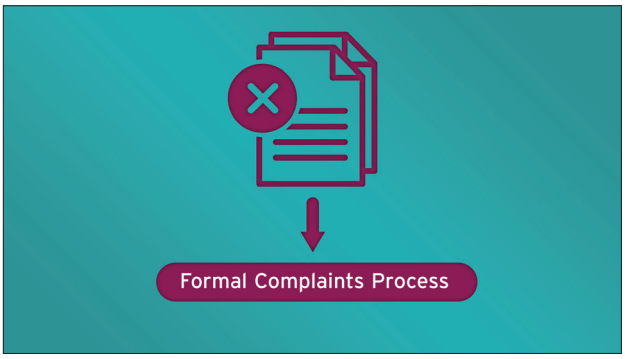
ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
The Inquiries, Complaints and Reports Committee can only make a decision about the dentist's conduct and the standard of treatment provided.		Host on full screen
The Committee cannot, by law, award compensation, damages, or refunds of any kind. Only the courts have that authority.		Host pans to left, and blue circle appears on right of screen. Money icons appears in circle.
		Money icon gets crossed out within circle.
In most cases, there is an appeal process available that provides additional protection for both the patient and the dentist. On request of either party, an arm's-length provincial board called...		Money icon fades away. Umbrella icon with patient on one side and dentist on another appears.

ABOUT RCDSO – Video Story Boards

AUDIO	VIDEO	TRANSITIONS
...the Health Professions Appeal and Review Board may review the Committee's decision. In such a review, the Board looks at the adequacy of the College's investigation and the reasonableness of the Committee's decision.		Umbrella icon fades away and words appear as host speaks.
If you are considering suing a dentist for compensation as a result of negligence or malpractice, provincial law has put time limits on when you can commence a lawsuit. You should consult your legal advisor to determine what limitation period applies in your circumstance. Remember, a complaint filed with the College is separate and distinct from any legal action you may choose to take.		Words fade away and the hourglass icon appears as host speaks.
The College offers a voluntary and confidential program for the resolution of some complaints. It is called alternative dispute resolution, also known as ADR. It provides an opportunity for you and the dentist to resolve issues through mediation.		Screen transitions to colour background. ADR words appear big.
Not all complaints are suitable for ADR. If your complaint is considered suitable and both you and the dentist agree to participate,...		Words shrink down and two icons appear. Arrow appears last.

ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
...an impartial, independent facilitator will assist both parties in reaching a resolution.		Arrow disappears. "You" and "Dentist" icons slide over in opposite directions, to make room for the facilitator icon that appears between the two. Two new arrows appear.
If, for some reason,...		Bracket appears underneath people icons, and screen starts to pan down.
the ADR process does not result in a resolution...		Crossed out document icon appears.
...your complaint will be handled through the formal complaint process.		Screen continues to pan down, arrow and text appears as host speaks.

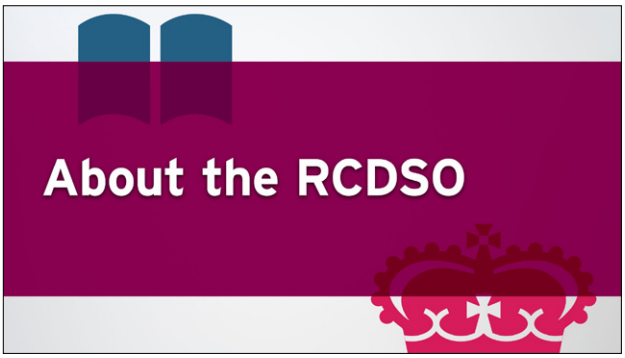
ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
All resolutions reached through ADR must be approved by the Inquiries, Complaints and Reports Committee.		The "x" icon swaps out for a checkmark. The arrow and text bar disappear. New text bar appears with arrow.
For more information about the complaints process and our role as the self-regulatory body for dentists, visit our website at www.rcdso.org.		Host left of screen. Green circle animates with contact website URL and icon.

END

ABOUT RCDSO - Video Story Boards

APPENDIX 9

AUDIO	VIDEO	TRANSITIONS
Introduction Music		Burgundy bar slides in, along with lantern from left, and maple leaves from right. Logo animates on the screen.
		Lantern and leaves slide out of screen, and book slides in from left, crown from right. Title appears through animation.
Have you ever wondered who oversees dentists in Ontario?		Dentist icons pop onto screen, followed by question mark.
It is the Royal College of Dental Surgeons of Ontario. Our job is to protect the right to quality dental services for all Ontarians.		Dentist icons and Ontario's colour changes from teal to burgundy. Question mark is replaced by dentist crest.

ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
Provincial law sets out how we must do that.		Scale icon appears first. Dotted lines extend out and dentist icons pop up one by one.
The government gives the profession the right to self-regulate in the public's interest and closely monitors how we measure up.		Check marks appear one by one.
The public trusts dentists to set and monitor their own professional standards. In return, dentists must provide high-quality dental care to their patients.		Icons shift upwards and dotted lines extend out, new public icon pops up.
The College has a number of duties. We set the education and other qualifications necessary to enter the profession. We administer quality assurance programs that dentists are required to participate in to help prove their competence. We develop professional and ethical standards and guidelines. And we provide a complaint and investigation process for people who feel those standards have not been met.		Colour bars with Icons and corresponding words slide in one by one from the right.

ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
All the work at the College is based on a firm foundation of values that resonate through everything we do.		Close up of host talking.
Those values are trust, transparency, accountability, equality, accessibility, fairness and responsiveness.		Burgundy background appears with RCDSO crest. Words slide in one by one from the left. Each word will slide in as white at first, then fade to light burgundy colour.
		
The College is committed to ensuring that you receive high-quality, ethical care. That is why the safe care of patients by dentists is at the heart of everything the College does.		Words fade away, colour changes to white background with host on right. Icon appears on left.

ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
Public representatives play a vital role in the College business.		People icons appear.
Members of the public are appointed by government to sit on our governing board.		Certain figures turn green one by one.
Any member of the public is welcome to participate in the consultation process for any proposed new bylaws, guidelines and standards.		Icons shift towards bottom of the screen and the words appear one by one.
To find more about the College and how to be involved in the consultation process, visit our website at www.rcdso.org.		Blue circle with text and icon pops up.

ABOUT RCDSO - Video Story Boards

AUDIO	VIDEO	TRANSITIONS
If you have any questions or would like more information about the College, please contact us at info@rcdso.org.		Blue circle disappears and green circle with text and icon pops up.

END

MR. FEFERGRAD: 45 minutes.

MR. CHAIRMAN: We are negotiating the length of the lunch here. So say 1:20. Back at 1:20 and then we will hear from Mr. Corcoran and then we will get back to our motions. So we are now on break for 45 minutes.

LUNCH BREAK

Upon Resuming...

MR. CHAIRMAN: You can't have lunch in 45 minutes. It is impossible. The meeting will reconvene. This is the 397th Meeting and it is over to Dr. Trainor.

DR. TRAINOR: Thank you, Mr. Chairman. It is my great pleasure to formally introduce Tom Corcoran who is the chair of Health Professions Regulatory Advisory Council. I have not known Tom that long but I have known him long enough to tell you that he is an amazing man of many talents. He has an MBA and is an engineer. He has held senior executive roles here in Canada and abroad with IBM, Confederation Life, KPMG and Canada Life. Specializing in corporate restructuring and performance management he is now focusing his energy on corporate

governance. Over the past twelve years he has held a number of corporate directorships. He has a stellar record of community service serving on the Board of Bridgepoint Hospital, as a governor at the University of Waterloo, a Director of the National Ballet of Canada, President and Chair of the Ontario Chamber of Commerce and Director of the Canadian Chamber of Commerce and Director of YMCA Youth Enterprise Centres of Canada. It is such a great honour to have Tom here today to speak to our Council. As HPRAC chair Tom heads the body that has the statutory duty under the Regulated Health Professions Act to advise the Minister of Health on health professions regulatory matters. In other words, he is the go to guy for the Minister when she wants advice and counsel about what needs to happen in the world of health care regulation. In other words, what Tom has to say is very important to us as a regulator. Tom, on behalf of our Council and staff I extend our warmest welcome to you and thank you for joining us today.

MR. CORCORAN: Thank you, Peter.

(GENERAL APPLAUSE)

MR. CORCORAN: Thank you. Well, good afternoon everybody. When I hear the introduction I say, boy, those are a lot of Boards to have been on but when you get old you can add up a lot of them. First of all, let me say I'm delighted to be here today. As a member of a regulated profession, albeit not health, I do have a realization and a real appreciation for the history of this organization and although it is a public forum that anybody can attend not everybody is asked to address the group and so therefore I am really proud to be doing this today and in addition there is a bit of a subtext here in that part of the motivation was I wanted to hear a bit of a flash report from Peter on the now broadly understood Cayton report. So I'm glad you hear you passed, Peter. Even happier for you, Irwin because it was your idea probably. As was mentioned in the introduction I Chair HPRAC which is really guided a lot by the RHPA. It is a piece of legislation that has a 23-24 year history, really well thought out at the time and seems

to have struck a good balance between safety on the one hand and the freedom to act on the part of the health professional on the other. On the other hand, in the 21st Century two decades is like an eternity. Like nothing can stand still and frozen in time for two decades and I think it is appropriate; I'm not implying this is a court uprising where the RCDSO is now suggesting the RHPA be revamped but I think the notion of saying let's assess ourselves with not just an outside person but an outside person from another jurisdiction that at least has some cache in the regulated health care world is a brilliant move so kudos to you for commissioning the Cayton study. I would point out, based on the discussion I had with Harry; I call him Harry now but we have had an opportunity. We did spend a really delightful lunch that I remember and he was quick to point out and I appreciated the fact that he doesn't have a galactic template that has been picked up from the U.K. and landed here in Canada but instead it is a proven framework that he, with the RCDSO, support significantly adapted for

Canada and incidentally, he did the same thing for Australia and other jurisdictions and New Zealand was another jurisdiction that they applied their methodology. So it isn't a silver bullet to solve all problems but rather a framework to operate within. I would also commend the RCDSO for taking the lead because I'm often reminded of the story of the lead dog in a dog pack where being first, the dog at the front. First of all you have a way better view than anybody else and second of all you get a lot of attention. You get an opportunity to set the standards for what could come in the future and in fact it will be your standards that will be embraced if there are to be revisions. From the Minister's standpoint my opinion would be you don't learn from asking the worst of a population to come in and be invited into the star chamber to then confess all the things that they weren't doing properly because you know what you are going to find but if you can bring the microscope down on an organization's better in fact leading a group of entities; in this case regulated health

colleges, you do learn what you should be doing not what you shouldn't be doing. In fact, the HPRAC organization on my arrival went through a revision of the criteria that we apply to unregulated health professional bodies of individuals who are seeking approval to be regulated. They were significantly revised. There used to be a list of considerations that had all equal priority and we revised that set of considerations to have one key one and it is the one you all would agree on and that is does the fact based submission of an application to be regulated in fact demonstrate that there is risk of harm to the public and if that body of unregulated health professionals can't demonstrate that then we don't even bother going on to the rest of the assessment process, of which there are eight major categories and the other categories are really intended if you can demonstrate there is a risk of public harm that is there another legislative non statutory or statutory framework that could apply here. Is there some other form of regulation that deals with this group that is coming forward

applying to be regulated. Is there another framework, a non statutory framework and of course it is very popular these days in the health care world to talk about registries, either voluntary or mandatory and the final aspect of those other eight considerations and I'm particularly reminded of this point when I hear your reports from the various committees this morning about all of the panels that have to be constituted from amongst the Council which is significant in size, is that a College or a group of health professionals who are not regulated and applying to be regulated have to understand that what you talk about here they are going to have to talk about, that there are fiduciary responsibilities that have to be part of that application and if they really don't have the economic case to be able to support what is being proposed that that could be a reason why even though there may be a risk of harm we need to find another way of dealing with this particular situation than through a self standing college. So we have gone through that ourselves. I would conclude by just

giving a brief positioning of HPRAC in the broader health care scheme. We and I operate at the direction of the Minister. That is to say, that the Minister sends a referral letter to me saying I'd like you to look into the following topic and as this group knows only too well it may have something to do with a group applying to be self regulated or it may have to do with some aspect associated with the RHPA to wit provisions of the RHPA that are related to sexual abuse and this organization I know put together a very well orchestrated position on the subject that was taken into account, along with other positions in the conclusion and their subsequent recommendation that we made to the Minister. So it can be associated with a particular group applying or it could be a topic that in some way is associated with the RHPA but it is a letter. I am not allowed to operate independently and other sources of referrals could be not only a group coming forward asking to be regulated but it could be an existing college that asks to have some consideration analyzed by HPRAC. It

could be the public identifying a matter or it could be the staff within the Ministry of Health and Long Term Care and the physician assistant application to be self regulated would be an example where that was very much a Ministry of Health initiative. So our work plan is dictated by the backlog of referral letters, some of which go back to 2000. So thirteen years in the backlog is a long time to not have taken action on. So part of our go forward approach, and we are working our way through the backlog of referrals and will have concluded everything on or before schedule by the end of this year and then we need to start contemplating the next step. One option could be to continue to watch the in basket for a letter from the Minister and I'm sure there will be letters from the Minister that may be economically motivated. They could be politically motivated. I don't know but there will be letters that arrive that say whatever you are doing drop that and focus on this but I think we need a better agenda than that so we are working in conjunction with the Ministry of

Health and Long Term Care staff. Of course have our own small secretariat that supports our efforts and the Minister's office to create an HPRAC agenda and that is to say we are trying to understand based on our collective understanding of the regulated health care landscape not only what are the issues because I think probably most of those are well known by the Ministry and the Minister now but in the spirit of what has been talked about several times this morning where is the puck going to be in the future and try to end up there and put together an agenda that has the Ministry and the Minister taking advantage of the investment in this group that has developed over the course of the last two years, I think, significant confidence based on commissioned research that we have done as well as personal research and education on not only health care systems here in Canada but throughout the English speaking world. And I can tell you absolutely that the Cayton framework will be a consideration as we talk about our go forward strategy. So with that I'd like to express my

congratulations to the group. It sounds like you have been oriented by fire arriving in your roles and being presented with these significant initiatives, which is terrific. I'd like to thank you for this opportunity to address the group and look forward to working with you going forward and on behalf of the Minister and as an Ontarian I'd like to thank you all as Council members for the time and energy and effort that you put into your roles to improve health care in Ontario. Thank you very much.

(GENERAL APPLAUSE)

MR. FEFERGRAD: The first time I met Tom we had lunch and Tom said to me something like I think we should split lunch. I think your share was eighteen bucks and I said sure and then Tom went, you know the old trick, I'll send you a cheque. The next time I met Tom it was with Peter and Tom said to me here is the $18.00 for lunch. In which case Peter said to me after I can't believe you asked the Chair of HPRAC for eighteen bucks for lunch but it shows the ethical standard that Tom has which doesn't

APPENDIX 11

GUIDELINES

Infection Prevention and Control in the Dental Office

Royal College of
Dental Surgeons of Ontario

Ensuring Continued Trust

Revised – February 2010
Approved by Council – November 2009
This is a revision to the Guidelines on Infection Control
in the Dental Office issued in January 2002.

The Guidelines of the Royal College of Dental Surgeons of Ontario contain practice parameters and standards which should be considered by all Ontario dentists in the care of their patients. It is important to note that these Guidelines may be used by the College or other bodies in determining whether appropriate standards of practice and professional responsibilities have been maintained.

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Introduction

Infection prevention and control is an important part of safe patient care. Concerns about the possible spread of blood-borne diseases, and the impact of emerging, highly contagious respiratory and other illnesses, require practitioners to establish, evaluate, continually update and monitor their infection prevention and control strategies and protocols.

These Guidelines are significantly broader than previous documents, and they reflect current knowledge of the transmission of infection, and how to prevent and control it.

IMPORTANT

In this document, the following assumptions have been made:

- ✔ The terms "oral health care worker" (OHCW) and "staff" are used interchangeably. Staff encompasses all persons conducting activities within or associated with dental offices and includes dentists, dental hygienists, dental assistants, anaesthetists and other support persons.
- ✔ The term "dental office" includes any facility in which oral health care is provided, such as traditional dental practices, community and school-based dental clinics, and collective living centres and other institutional settings.
- ✔ These guidelines contain practice parameters and standards, but respect the autonomy of each dental office. Guidelines, by definition, are directing principles, and indications or outlines of policy and conduct.
- ✔ OHCWs are trained to take precautions in order to protect patients and staff. In addition to previous instruction, it is important that all OHCWs receive office-specific training in infection prevention and control as part of their orientation, and whenever new tasks, procedures or equipment are introduced. It is recommended that one staff person should be appointed to manage the dental office's infection prevention and control program and ensure that it remains current. While infection prevention and control is the responsibility of all OHCWs, implementation and oversight rests with the principal dentist(s).

Purpose of the Document

This document is intended to provide all OHCWs with the knowledge to properly implement necessary infection prevention and control measures in dental practice. It consolidates published recommendations from government and other agencies, regulatory bodies and professional associations.

Wherever possible, recommendations are based on data from well-designed scientific studies. However, some infection prevention and control practices routinely used by health care practitioners cannot be rigorously examined for ethical or logistical reasons. In the absence of scientific evidence for such practices, certain recommendations are based on strong theoretical rationale, suggestive evidence or opinions of respected authorities. In addition, some recommendations are derived from provincial and federal regulations.

Accordingly, this document presents "best practices," reflecting the best evidence and expert opinion available at the time of writing.

Professional and Regulatory Considerations

Dentists have an obligation to maintain the standards of practice of the profession and, accordingly, must ensure that recommended infection prevention and control procedures are carried out in their offices.

OHCWs must maintain current knowledge of infection prevention and control procedures, and apply and maintain them appropriately and consistently. To this end, it is the dentist's responsibility to ensure that staff are adequately trained in infection prevention and control procedures, and that the necessary supplies and equipment are available, fully operational, up-to-date and routinely monitored for efficacy.

In addition to professional obligations, dentists also have an ethical duty to maintain a safe and healthy office environment for both patients and staff, and to adhere to all rules and regulations related to the operation of a dental practice, including workplace health and safety and environmental protection.

Principles of Infection Prevention and Control (IPAC)

The risk of infection as a result of a dental procedure is extremely low, but it represents an important patient safety consideration. By understanding how diseases are transmitted, and applying infection prevention and control principles (IPAC), OHCWs can develop strategies to interrupt the transmission of micro-organisms among patients and OHCWs, and from dental instruments, handpieces, devices and equipment.

IPAC principles include:

- patient assessment;
- following routine practices;
- using barrier techniques to protect both patients and OHCWs;
- applying the principles of cleaning, disinfection, sterilization and storage of dental instruments;
- environmental cleaning;
- care of the overall office setting;
- safe handling and disposal of wastes.

An overall IPAC program should focus on strategies to reduce the risk of transmission. These strategies include:

a) identifying, communicating and implementing standards and guidelines by setting specific policies and procedures;
b) effective occupational health and safety programs for all OHCWs, such as written procedures for the workplace and guidance on immunization;
c) educating OHCWs, as well as patients and their families, about everyone's role in infection prevention;
d) ongoing review of policies and procedures, and evaluation of the IPAC program.

Patient Safety

Three main elements are required to spread infection:

1 susceptible host

2 causative agent

3 mode of transmission

By removing any one of these elements, an infection cannot occur. This principle forms the foundation of an acceptable infection prevention and control strategy.

Transmission of Micro-organisms

Understanding the modes of transmission of infection is necessary for designing and implementing effective infection prevention and control strategies.

Dental patients and OHCWs can be exposed to pathogenic micro-organisms, including viruses (e.g. HBV, HCV, HIV, human herpes group of viruses, human papilloma virus), bacteria (e.g. Mycobacterium tuberculosis, staphylococci, streptococci) and other microbes that colonize or infect the oral cavity and respiratory tract.

In the dental office, the three main modes of transmission of micro-organisms are:

direct transmission – direct physical contact with blood, oral fluids or other materials

indirect transmission – contact with an intermediate contaminated object, such as a dental instrument, equipment or an environmental surface

droplet transmission – contact of oral, nasal or conjunctival mucosa with droplets, spatter or spray containing micro-organisms generated from an infected person, such as by coughing, sneezing or talking

Screening of Patients

From time to time, patients who are unwell may attend at a dental office. Their health condition may relate to a dental problem, such as an oral infection or a postoperative complication, but it may also relate to a non-dental problem, such as a severe respiratory illness (e.g. influenza) or simply a bad cold.

In order to protect other patients and OHCWs from the spread of micro-organisms, patients who appear to be ill should be rescheduled if at all possible. If their dental condition is of an urgent nature, every effort should be made to separate them from other patients by seating them in a secluded operatory as soon as possible. In this way, the spread of micro-organisms by direct or droplet transmission can be minimized.

Another opportunity to screen for ill patients is when confirming dental appointments in advance. If staff learn that a particular patient has a fever or cough, dental appointments should be rescheduled.

Routine Practices

Health Canada uses the term "routine practices" to describe basic standards of infection prevention and control that are required for safe patient care. A similar term, "standard precautions," is used by the Centers for Disease Control and Prevention in the United States. Routine practices synthesize the major principles of "universal precautions," which are designed to reduce the risk of transmitting pathogens that are blood-borne, and those of "body substance precautions," which are designed to reduce the risk of transmitting pathogens from moist body substances.

Routine practices are based on the concept that all patients are potentially infective, even when asymptomatic, and that the same safe standards of practice should routinely apply to contact with blood, body fluids and secretions (e.g. saliva), mucous membranes and non-intact skin.

Adherence to routine practices protects both OHCWs and patients.

There are four principles that are inherent in routine practices:

1 risk assessment

2 hand hygiene

3 use of personal protective equipment

4 safe handling and disposal of sharps

Risk Assessment

The first step in the effective use of routine practices is to perform a risk assessment. This must be done before each interaction with the patient in order to determine the interventions that are required to prevent the transmission of infection.

The risk of transmission of micro-organisms will vary, depending on the type of dental procedure to be performed and the likelihood of exposure to blood, body fluids and secretions, mucous membranes and non-intact skin. Additional factors to consider include:

- the health status of the patient;
- the characteristics of the patient, such as level of cooperativeness;
- the physical environment and resources available;
- the immune status of the OHCW.

Procedures involving exposure to blood, body fluids and secretions, mucous membranes and non-intact skin require the use of appropriate personal protective equipment. On the other hand, procedures involving no anticipated exposure may require fewer precautions.

IMPORTANT

Perform a risk assessment before each interaction with the patient in order to determine the interventions that are required to prevent the transmission of infection.

Hand Hygiene

Hand hygiene is the single most important measure for preventing the transmission of micro-organisms. The term "hand hygiene" has replaced handwashing and includes the use of plain or antimicrobial soap with running water, as well as alcohol-based hand rub.

When should hand hygiene occur and with what type of product?

Hands should be washed with plain or antimicrobial soap and running water:

- when hands are visibly soiled (including with powder from gloves) or contaminated with body fluids;
- following personal body functions.

If hands are NOT visibly soiled (i.e. the majority of instances), the use of a 70-90% alcohol-based hand rub is the preferred method of hand hygiene. This includes:

- before and after direct contact with individual patients;
- after contact with environmental surfaces, instruments or other equipment in the dental operatory;
- after contact with dental laboratory materials or equipment;
- before eating or drinking.

IMPORTANT

Use professional judgement for either procedure. If you think your hands have accidentally become contaminated with body fluids, wash with soap and water to remove organic matter.

Liquid soap should be provided in disposable pump dispensers. Bar soap should not be used. Hand lotion to prevent dry or cracked skin also should be available in disposable pump dispensers. Petroleum-based hand lotions should not be used, because they can affect glove integrity. To avoid contamination, disposable pump dispensers of liquid products should be discarded when empty and not "topped-up" or refilled.

Despite perceptions to the contrary, alcohol-based hand rubs have been shown to be less irritating to skin than soap and water. Select a product that contains emollients.

IMPORTANT

There is sufficient evidence that alcohol-based hand rubs are superior to washing with soap and water, except in cases where the hands are visibly soiled or contaminated with body fluids.

How should hand hygiene be done?

When using soap and water for routine care:

- Wet hands with warm, not hot, water.
- Apply adequate amount of soap to achieve lather.
- Rub vigorously for a minimum of 15 seconds, covering all surfaces of hands and fingers. Pay particular attention to finger tips, between fingers, backs of hands and base of thumbs, which are the most commonly missed areas.
- Rinse well with running water.
- Dry thoroughly with a disposable paper towel. Turn off taps with towel and discard towel in a bin.

IMPORTANT

Avoid the use of hand jewellery and prosthetic nails. Jewellery interferes with proper hand hygiene, while prosthetic nails have been implicated in hospital outbreaks involving fungal and bacterial infections.

When using antimicrobial soap and water for surgical procedures:

- Remove all hand and wrist jewellery.
- Wash hands and at least 2 inches above wrists thoroughly for the length of time recommended by the manufacturer, which is usually 2 to 5 minutes.
- Clean under nails. A disposable manicure stick may be used, but nailbrushes are NOT recommended, as they can become contaminated and damage the skin around the nails. Nails should be short enough to allow thorough cleaning underneath and not cause glove tears.
- Rinse off soap and dry hands thoroughly before donning sterile gloves.

When using an alcohol-based hand rub for routine care:

- Apply the product to one palm and rub both hands together for a minimum of 15 seconds, covering all surfaces of hands and fingers, until they are dry.

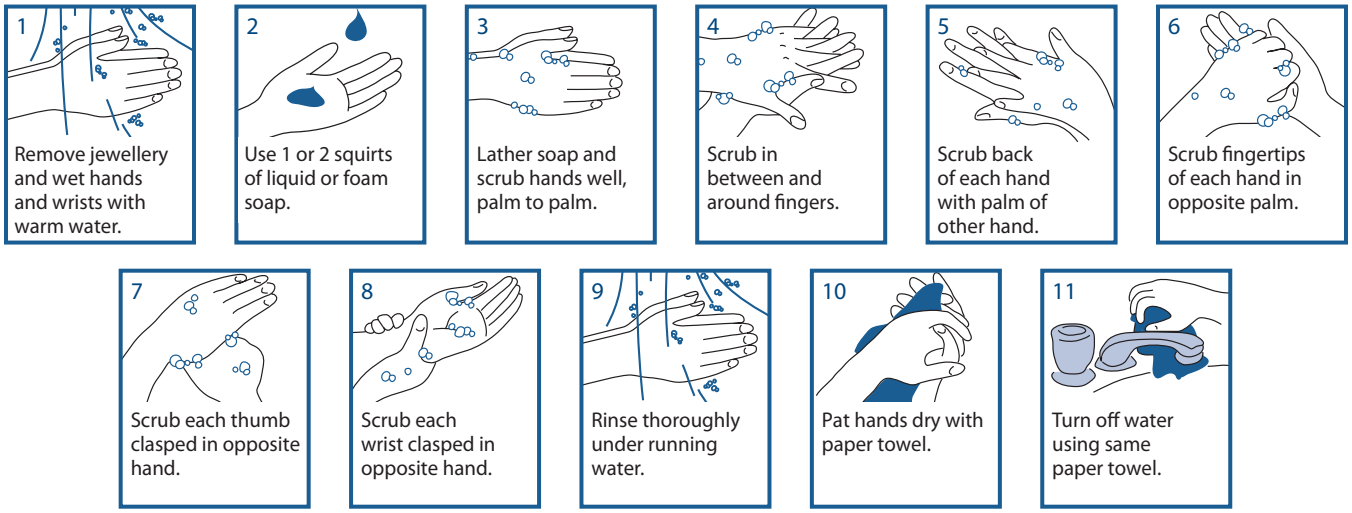
When using an alcohol-based surgical hand rub for surgical procedures:

- Remove all hand and wrist jewellery.
- Apply the product to dry hands only and follow the manufacturer's instructions.
- Allow hands to dry thoroughly before donning sterile gloves.

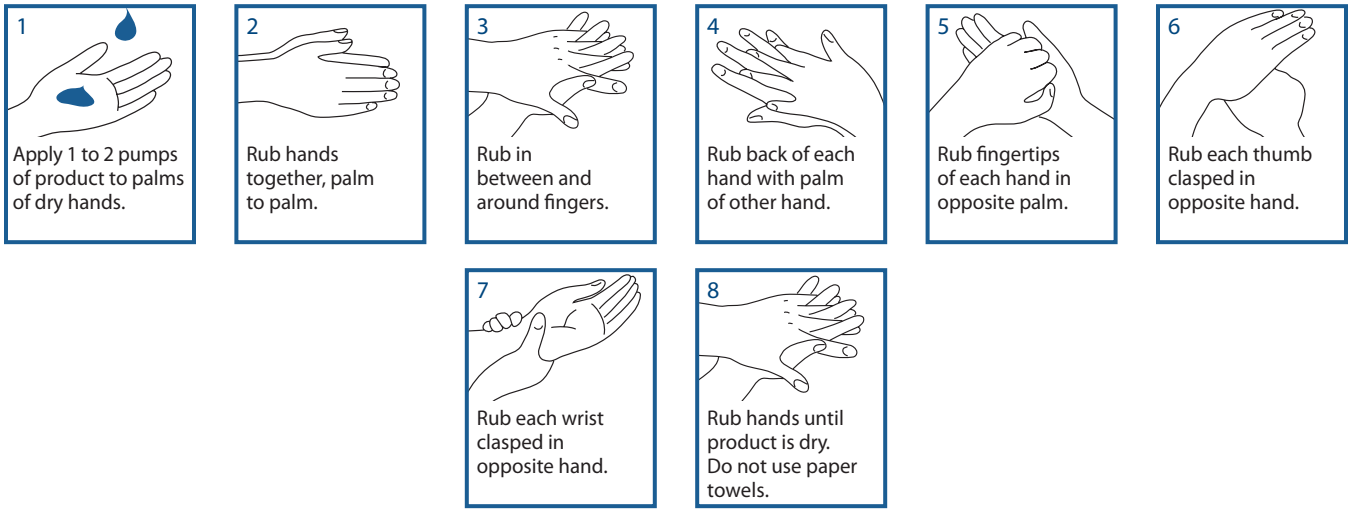
Hand hygiene facilities should be located as close as possible to all dental operatories and, preferably, in clear sight of patients. If they are out of sight, patients should be made aware that hand hygiene is taking or has taken place. In addition:

- Soap dispensers should be placed at every sink.
- Alcohol-based hand rub dispensers should be strategically located for ease of use.
- Disposable towels should be readily available at each facility.
- Taps should be turned off with the aid of a paper towel to avoid recontamination of hands. If renovating, consider installing hands-free faucets.
- A hand wash sink should not be used for any other purpose. Do not clean equipment or discard waste in a hand wash sink. Maintain separate facilities for these tasks. Keep clean equipment away from sinks to avoid contamination.

Handwashing with soap and water



Cleaning with alcohol-based hand rub



Source: Ontario Ministry of Health and Long-Term Care

Personal Protective Equipment

General considerations

OHCWs wear personal protective equipment (PPE) to shield their own tissues from exposure to potentially infectious material. This also protects patients, by preventing the OHCW from becoming a vector for the transmission of micro-organisms from patient to patient.

Additional protective barriers and techniques should be employed to shield patients from potentially infectious material.

Protective eyewear

Large particle droplets of water, saliva, blood, micro-organisms and other debris are created by the use of dental handpieces, ultrasonic instruments and air/water syringes. This visible spray typically travels only a short distance and settles out quickly, landing on nearby surfaces, including the operatory countertops and equipment, as well as the OHCW and patient.

Patients should be provided with protective eyewear to shield their eyes from spatter and debris created during dental procedures. Protective eyewear should be worn throughout the dental appointment, then cleaned and disinfected after use and whenever becoming visibly contaminated.

Protective draping

Single-use bibs or drapes should be used to protect patients' clothing, and reduce their exposure to spatter and debris created during dental procedures. Single-use strips may be used to secure bibs and drapes, in place of reusable daisy chains.

Use of rubber dam and high-volume suction

Appropriate efforts should be made to minimize the spread of droplets, spatter and spray created during dental procedures. Accordingly, a rubber dam should be used whenever feasible, and high-volume suction should be used whenever the creation of droplets, spatter and spray, is possible.

The use of rubber dam and high-volume suction also minimizes the ingestion or inhalation of contaminated material and debris.

Latex sensitivity and allergies

Dental patients with true latex allergy may react to common dental products, such as gloves, rubber dams, prophylaxis cups, orthodontic elastics and some medication vials. As part of the medical history taking process, patients should be asked questions relating to possible latex allergy. This includes asking whether true latex allergy has been diagnosed. Additional questions should probe for a history of common predisposing conditions for latex allergy, such as other allergies (e.g. avocados, kiwis, hazelnuts, bananas) or early latex exposure related to medical treatment (e.g. spina bifida, urogentital anomalies).

Patients with true latex allergy should be treated in an environment where contact with latex proteins, either directly or airborne, is kept as low as reasonably achievable. All latex-containing materials or devices should be removed from the operatory or adequately covered and isolated.

IMPORTANT

Check labels of dental products for latex content. Many items are available in latex-free forms.

Handling and Disposal of Sharps

While this subject will be reviewed in detail in the following section dealing with the responsibilities and safety of OHCWs, it must be stressed that extreme care should be taken at all times to ensure patients are protected from injuries involving sharp objects. Sharps should be kept out of the reach of patients and safely collected in a clearly labelled puncture-resistant container.

Additional Precautions

Routine practices may not be sufficient for patients who are infected or colonized with certain micro-organisms that pose special problems in blocking their transmission. The term "additional precautions" is used to describe measures that are taken in addition to routine practices in order to interrupt the transmission of such micro-organisms. They include the physical separation of infected or colonized patients from other individuals and the use of protective barriers (e.g. gowns, gloves, masks) to prevent or limit the transmission of the infectious agent.

These additional precautions are of particular relevance in health care institutions, where they may be determined by local infection prevention and control committees and monitors. For example, in an institutional setting, patients may be at increased risk of becoming infected or colonized with methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant enterococcus (VRE) or respiratory tract viruses (e.g. influenza).

In an ambulatory setting, such as a dental office, additional precautions are required for patients who are known or suspected of having an infection that can be transmitted by large respiratory droplets. Examples of micro-organisms that can be transmitted in this fashion include respiratory tract viruses, rubella, mumps and Bordetella pertussis.

Patients who are known or suspected of having an infection that can be transmitted by large respiratory droplets should be offered a mask and hand hygiene upon presentation, maintain a two-metre spatial separation from other persons, and be removed from the reception/waiting area and seated in a secluded operatory as soon as possible. In this way, the spread of such micro-organisms by droplet transmission can be minimized.

For more information about additional precautions, refer to *Routine Practices and Additional Precautions in All Health Care Settings*, released by the Provincial Infectious Diseases Advisory Committee (PIDAC) in 2009. (See Appendix 2 for the link to this document.)

Human Rights and Confidentiality

The Ontario Human Rights Code (the Code) provides for equal rights and opportunities, and freedom from discrimination. It prohibits discrimination based on race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, record of offences, marital status, same sex partnership status, family status or disability.

The Code recognizes persons living with AIDS or HIV-related illness as disabled. Consequently, dentists are prohibited from discriminating against such patients. This includes using extraordinary and unnecessary infection control or other measures that are not used for other patients. Dentists may require modifications to routine practices based on the risks associated with certain dental procedures, provided that they are employed for all patients undergoing the same procedures.

The information contained in patient records is confidential and must not be released to anyone without the consent of the patient, or his/her authorized representative, or as required or allowed by law. Therefore, it is important to remember that patient records should be stored securely and not left unattended or in public areas of the office.

Sensitive medical information should not be recorded on the front of the patient's chart, where it could easily be seen by others. A medical alert should be coded in such a way that only staff recognize the significance of the information, while the exact nature of the condition should be documented within the patient's chart.

If patient records are computerized, login and password protection should be used to prevent unauthorized access. In addition, screen savers and other measures should be employed to ensure information on computer screens is not visible to other patients in the office.

It is the dentist's responsibility to ensure that all staff are knowledgeable about and take appropriate steps to protect patient confidentiality.

Oral Health Care Workers' Responsibilities and Safety

Education and Training

OHCWs are more likely to comply with infection prevention and control protocols if they understand the rationale for them. Therefore, in addition to previous instruction, it is important that all OHCWs receive office-specific training in infection prevention and control as part of their orientation, and whenever new tasks, procedures or equipment are introduced. This training should be supplemented whenever necessary and reviewed at least annually by means of staff meetings, attendance at continuing education courses and through self-learning programs.

All OHCWs should receive training that includes information about their exposure risks, infection prevention and control strategies specific to their occupational tasks, and the management of any work-related illness or injury.

It is also recommended that this document, as well as key reference materials identified in it, form part of an in-office Infection Prevention and Control Manual.

Immunization

Immunizations substantially reduce the number of OHCWs susceptible to infectious diseases, as well as the potential for disease transmission to other staff and patients. Therefore, immunizations are an essential part of infection prevention and control programs.

All OHCWs should be adequately immunized against the following diseases:

- hepatitis B
- measles
- mumps
- rubella
- varicella
- influenza
- diphtheria
- pertussis
- tetanus
- polio

It is important that all OHCWs know their personal immunization status and ensure that it is up-to-date. In this regard, OHCWs should consult with their family physician about the need for immunizations, as well as baseline and annual tuberculosis skin testing. In addition, the Canadian Immunization Guide sets out recommendations and schedules for adults, including those engaged in the provision of health care.

Hepatitis B is the most important vaccine-preventable infectious disease for all workers engaged in health care. The risk of being infected is a consequence of the prevalence of virus carriers in the population receiving care, the frequency of exposure to blood and other body fluids, and the contagiousness of hepatitis B virus (HBV). Therefore, immunization against HBV is strongly recommended for all OHCWs who may be exposed to blood, body fluids or injury involving sharps.

Serological testing for anti-HBs should be conducted 1 to 2 months after completion of the 3-dose vaccination series to establish antibody response. OHCWs who fail to develop an adequate antibody response should complete a second vaccination series, followed by retesting for anti-HBs. OHCWs who fail to respond to the second vaccination series should be tested for HBsAg.

Nonresponders to vaccination who are HBsAg-negative should be counselled regarding precautions to prevent HBV infection and the need to obtain immunoglobulin prophylaxis for any known or probable parenteral exposure to HBsAg-positive blood.

OHCWs who are HBsAg-positive should seek guidance regarding necessary and reasonable steps to prevent HBV transmission to others and the need for medical evaluation. In particular, OHCWs who might perform exposure-prone procedures should be assessed on a case-by-case basis regarding the need for possible work restrictions.

IMPORTANT

OHCWs who might perform exposure-prone procedures have an ethical obligation to know their serologic status. If infected, dentists should seek guidance from the College with respect to the potential for transmission of their infection to their patients.

Illness and Work Restrictions

OHCWs are usually concerned about contracting illnesses in the dental office. Such occurrences can be minimized by practising the principles discussed in this document, including:

- ensuring adequate and appropriate immunization of all OHCWs;
- triaging patients and rescheduling those who are ill;
- adhering to routine practices, including effective hand hygiene before and after each patient contact.

As already noted, hand hygiene is the single most important measure for preventing the transmission of micro-organisms, protecting both OHCWs and patients. Please refer to the previous section of this document for detailed information regarding recommended hand hygiene procedures.

Unique situations that might warrant particular attention by an OHCW include:

- Dermatitis – When the protective skin barrier is broken, as occurs with chapped hands or exzema, the OHCW is at increased risk of acquiring and transmitting infection through the exposed area. Good skin care should always be practised. Any areas of dermatitis should be covered with bandages, in addition to wearing gloves.
- Immunocompromised staff – Immunocompromised OHCWs are at increased risk of becoming infected and may suffer more severe consequences. They might also be at risk of shedding viruses (e.g. influenza) for prolonged periods. Where feasible, job functions and associated exposure risks should be considered.

OHCWs who have an upper respiratory illness (e.g. common cold) should take the necessary precautions to prevent the transmission of micro-organisms to patients and other staff. Diligent hand hygiene is especially important. OHCWs who have a severe respiratory illness with fever, acute viral gastroenteritis with vomiting and diarrhea, or acute conjunctivitis should stay at home until their symptoms have subsided.

OHCWs who have oral and/or nasal herpes simplex infections (i.e. cold sores) should pay particular attention to hand hygiene and not touch the affected area. In this situation, the use of a mask might help to remind the worker not to touch the lesions.

Exposure Prevention

The primary method of preventing the transmission of blood-borne pathogens (e.g. HBV, HCV and HIV) to OHCWs is by avoiding occupational exposures to blood. In the dental office, exposures may occur through percutaneous injuries (e.g. needle-sticks or cuts with sharp objects), or by contact with the mucous membranes of the eyes, nose and mouth, or by contact with non-intact skin (e.g. exposed skin that is abraded, chapped or has signs of dermatitis).

The majority of exposures are preventable by following routine practices, which include the use of personal protective equipment (PPE), such as gloves, protective eyewear, masks and protective clothing, and safe work habits for the handling and disposal of sharps.

PPE should be used consistently during the treatment of patients, as well as the care of instruments and equipment. Cuts, abrasions or dermatitis constitute a breach in the skin's protective barrier. During work, non-intact skin should be covered with a water-proof bandage or protective dressing (e.g. Opsite, Tegaderm), which should be changed as needed. Large cuts might require medical assessment and re-evaluation of work duties.

Percutaneous injuries pose the greatest risk of transmission of blood-borne pathogens to OHCWs. Best practices to prevent such injuries include the following:

- Always use extreme caution when passing sharps during four-handed dentistry.
- Needles should remain capped prior to use.
- Needles should not be bent, recapped or otherwise manipulated by using both hands.
- Following use, needles should be recapped as soon as possible by using a one-handed scoop technique or a commercial recapping device.
- When suturing, tissues should be retracted using appropriate instruments (e.g. retractor, dental mirror), rather than fingers.
- Remove burs from handpieces immediately following the procedure.
- Identify and remove all sharps from trays before cleaning instruments.
- Used sharps must be collected in a clearly labelled puncture-resistant container.
- When cleaning contaminated instruments by hand, heavy-duty utility gloves, appropriate clothing and long-handled brushes should be used.

IMPORTANT

Where a syringe and needle are being used multiple times on the same patient, safe recapping of a needle is preferred to prolonged exposure to an unprotected needle.

Some instruments and equipment have been designed to increase safety, such as self-sheathing anaesthetic needles and dental units that shield burs in handpieces. Safer versions of sharp devices should be considered as they become available in the dental marketplace.

Personal Protective Equipment

General considerations

Personal protective equipment (PPE) is worn to shield the exposed tissues of OHCWs from exposure to potentially infectious material. PPE serves as a barrier to protect the skin of the hands and arms from exposure to splashing, spraying or spatter of blood, saliva or other body fluids, and from introducing micro-organisms into deeper tissues by traumatic injuries. Such equipment also protects the conjunctival mucosa of the eyes, as well as the lining mucosa of the respiratory tract.

Primary barriers include gloves, protective eyewear, masks and protective clothing. PPE should be removed prior to leaving the operatory. Single-use barriers, such as gloves and masks, should be discarded immediately after use.

Gloves

Gloves are worn to protect the hands of the OHCW from contamination. Since gloves are not completely free from leaks and may tear, their use does not replace the need for hand hygiene. Therefore, effective hand hygiene protocols should be followed before donning gloves and after removing them.

In the dental office:

- Gloves must be worn when contact with mucous membranes, non-intact skin or body fluids is anticipated.
- The same pair of gloves must not be used for more than one patient.
- Gloves should be put on immediately before the activity for which they are indicated.
- Gloves must be removed and discarded immediately after the activity for which they were used, and hand hygiene must be performed.
- Gloves should not be worn outside any room or area where they are required for personal protection.
- Gloves must not be washed and reused.
- Double-gloving may be utilized for some specific procedures, which may involve the handling of multiple sharp instruments or during longer appointments. However, if used, double-gloving should be procedure-specific, not patient-specific. This would be in keeping with human rights considerations.

Protective eyewear

The conjunctival mucosa of OHCWs should be protected from spatter and debris created during dental procedures by wearing appropriate eyewear or face shields. Protective eyewear should be cleaned and disinfected between patients and whenever it becomes noticeably contaminated.

It is also recommended that an eye-wash station should be available in the dental office for both OHCWs and patients to aid in managing contact with any body fluid or dental chemical/solvent.

Masks

Appropriate masks that cover the nose and mouth should be worn during dental procedures to protect the respiratory mucosa of OHCWs from contact with potentially contaminated droplet material. Masks lose efficiency over time, as they become moist from the OHCW's breathing. Accordingly, masks should be changed when they become contaminated, wet or more often, such as during longer appointments.

Protective clothing

Whenever spatter or spray is anticipated during dental procedures, the forearms of OHCWs should be protected by wearing long-sleeved protective clothing. This includes gowns and lab coats, which are meant to be worn over regular clinic clothing, such as uniforms, scrubs or street clothing.

It is the dentist's responsibility to develop a policy that uniforms and scrubs worn during patient care procedures should NOT be worn outside the dental office.

Latex sensitivity and allergies

Latex is commonly used in the manufacture of gloves and a large number of products employed in dental care, including rubber dams, prophylaxis cups, orthodontic elastics and some medication vials. Skin irritations can be confused with true allergy to latex. The vast majority of skin reactions involving gloves are, in fact, irritant contact dermatitis, and not allergic reactions to latex.

Adverse reactions involving latex gloves range from mild to serious and can include:

- irritant contact dermatitis;
- delayed hypersensitivity reactions (allergic contact dermatitis);
- immediate allergic reactions.

Mild contact dermatitis can be managed by changing the types or brands of soap, towels or gloves, rinsing hands thoroughly after washing, and using proper hand hygiene practices.

Delayed hypersensitivity reactions require referral to a medical dermatologist, and using washed (powderless) low-protein latex gloves or non-latex gloves.

Immediate allergic reactions necessitate emergency medical care and subsequent referral to a medical dermatologist, as well as using only non-latex, powder-free gloves and the avoidance of all latex products in the workplace and at home.

Minimizing Droplet Splatter

By their very nature, the provision of dental services can involve the creation of droplets, spatter and spray contaminated with blood, saliva, other body fluids and debris.

As previously noted, rubber dam should be used whenever feasible, and high-volume suction should be used whenever the creation of droplets, spatter and spray is possible.

Exposure Management

Blood-borne pathogens, such as HBV, HCV and HIV, can be transmitted to OHCWs through occupational exposures to blood, saliva and other body fluids. Significant exposures must be handled in a prompt and organized fashion. For this reason, an exposure management protocol is an important component of an in-office Infection Prevention and Control Manual.

IMPORTANT

All OHCWs should know the dental office's exposure management protocol and review it periodically.

Significant exposures include percutaneous injuries with contaminated needles, burs or other sharp instruments, as well as accidents in which blood, saliva or other body fluids are splashed onto non-intact skin or the mucosa of the eyes, nose or mouth. However, percutaneous injuries pose the greatest risk of transmission of blood-borne pathogens to OHCWs.

In the event of a significant exposure, immediate first-aid measures should be instituted:

- For percutaneous injuries, allow the wound to bleed briefly and freely. Then, gently wash the wound with soap and water, and bandage as needed.
- For exposures involving the eyes, nose or mouth, flush the area with copious amounts of water.
- For exposures involving non-intact skin, wash the site with soap and water.

Any kind of occupational injury should be reported to a dentist in the practice. However, in all cases involving a significant exposure, the dentist should assess the source patient's status and risk for blood-borne illnesses by reviewing the medical history and, if necessary, asking her/him additional questions.

If the patient's HBV, HCV or HIV status is unknown, or if the patient presents with known risk factors, then her/his co-operation should be sought to clarify such information. Every reasonable effort should be made to obtain the patient's informed consent to be tested for HBV, HCV and HIV. This can be accomplished by referring the patient to her/his family physician for consultation, assessment of risk factors and any blood tests that are considered necessary.

At the same time, the injured OHCW should be referred to her/his family physician, an infectious disease specialist or hospital emergency department for counselling, baseline blood tests and, if deemed necessary, post-exposure prophylaxis.

If necessary, post-exposure prophylaxis should be administered as soon as possible. For example, in the event of a high-risk exposure to HIV infection, anti-retroviral drugs should be administered within hours.

All cases involving a significant exposure should be documented, including:

- name of the exposed OHCW and details regarding her/his vaccination status;
- date and time of the exposure;
- nature of the exposure, including the dental procedure being performed, the extent of the exposure and the immediate action taken;
- name of the source and details regarding his or her known or suspected status related to blood-borne pathogens;
- follow-up counselling and post-exposure management.

Occupational Health and Safety Requirements and WHMIS

All Ontario employers and employees are subject to the requirements of the *Occupational Health and Safety Act* (OHSA), which includes Regulation 860: *Workplace Hazardous Materials Information System* (WHMIS).

Under OHSA, there is a general duty for an employer to establish written procedures for the health and safety of employees. These procedures may include, but are not limited to, the following:

- safe work practices and working conditions;
- proper hygiene practices and the use of hygiene facilities;
- control of infections.

In addition, employees must work in compliance with the Act and its regulations, and use or wear any equipment, protective devices or clothing required by the employer.

WHMIS is a national communication standard that deals with hazardous materials in the workplace. Any workplace, including a dental office, that uses materials classified as controlled products under federal legislation is required to:

- supply labels for all controlled products that do not have them;
- ensure material safety data sheets (MSDS) are available for these products;
- educate and train workers about hazardous materials in the workplace.

Employers are obligated to uphold WHMIS standards in their workplace and to that end, every dentist should be familiar with the legislation. *Workplace Hazardous Materials Information System (WHMIS)*: *A Guide to the Legislation* is a useful resource and is available at the Ontario Ministry of Labour website (see Appendix 2).

Prohibition of Eating and Drinking in Non-Designated Areas

The consumption of all foods and beverages should be restricted to designated areas (e.g. lunch area, staff lounge) or outside of the dental office.

Eating and drinking in operatories, instrument processing areas and in-office dental laboratories should be prohibited.

Cleaning, Disinfection and Sterilization of Patient Care Items

General considerations

The goals of safe processing of reusable patient care items (dental instruments, handpieces, devices and equipment) include:

- preventing transmission of micro-organisms to OHCWs and patients;
- minimizing damage to patient care items from foreign material or inappropriate handling;
- safe handling of chemical disinfectants.

Contaminated instruments should be handled carefully at all times to prevent percutaneous injuries.

All instruments must be properly cleaned, rinsed and dried prior to either disinfection or sterilization. This step is essential, as residual organic debris will compromise the disinfection and sterilization process.

Patient care items are categorized as critical, semi-critical or non-critical, depending on the potential risk for infection associated with their intended use. This classification determines their processing requirements.

Category	Definition	Processing
Critical items	Penetrate soft tissue or contact bone (e.g. all surgical instruments, periodontal scalers, etc.)	Cleaning followed by sterilization
Semi-critical items	Contact mucous membranes or non-intact skin (e.g. mouth mirrors, amalgam condensers, reusable impression trays, handpieces, etc.)	Cleaning followed by sterilization*
Non-critical items	Contact intact skin, but not mucous membranes, or do not directly contact the patient (e.g. radiograph head/cone, blood pressure cuff, facebow, pulse oximeter, etc.)	Cleaning followed by low-level disinfection

* The majority of semi-critical items used in dentistry, including handpieces, are heat-tolerant and should always be heat-sterilized between uses. If a semi-critical item is heat-sensitive, at a minimum it should be processed using high-level disinfection.

Processing of Critical and Semi-critical Items

To achieve sterilization, the processing of instruments requires multiple steps. Sterilization is a complex process requiring specialized equipment, adequate space, qualified staff and regular monitoring for quality assurance. Correct sorting, cleaning, drying, packaging, sterilizer loading procedures and sterilization methods should be followed to ensure that all instruments are adequately processed and safe for reuse on patients.

All instruments should be processed in a central area of the dental office that is designed to facilitate quality control and ensure safety. The instrument processing area should have clear separation of clean and dirty areas with separate sections for:

- receiving, cleaning and decontamination;
- preparation and packaging;
- sterilization;
- storage.

Receiving, cleaning and decontamination

To prevent percutaneous injuries, contaminated instruments should be placed in a puncture-resistant container at the point of use and then transported to the instrument processing area. Reusable instruments should be received, sorted, cleaned and rinsed in one section of the processing area.

Cleaning involves the removal of debris (e.g. organic and inorganic matter). This is achieved either by scrubbing with a surfactant, detergent and water, or by an automated process (e.g. ultrasonic cleaner or washer with a cleaning solution). After cleaning, instruments should be rinsed with water to remove detergent residue and visually inspected to ensure all debris have been removed.

The use of automated cleaning equipment can increase productivity, improve cleaning effectiveness and decrease worker exposure to blood and body fluids. Thus, using automated equipment can be safer and more efficient than manually cleaning contaminated instruments.

Gross debris should be removed from instruments prior to placement in an ultrasonic cleaner. In addition, ultrasonic cleaning solutions should be changed daily or more frequently if they become visibly soiled. Automated washers do not require presoaking or scrubbing of most instruments.

If cleaning cannot be performed immediately, instruments should be placed in a puncture-resistant holding container and soaked with a detergent or an enzymatic cleaner to prevent drying of organic material, and make subsequent cleaning easier and less time-consuming. Liquid chemical sterilants or high-level disinfectants (e.g. glutaraldehyde, ortho-phthalaldehyde) should NOT be used as holding solutions, due to the fixative nature of these chemicals making surfaces more difficult to clean, as well as their general toxicity.

To avoid injury from sharp instruments, the following precautions should be taken:

- Wear puncture-resistant, heavy-duty utility gloves when handling or manually cleaning contaminated instruments.
- DO NOT reach into trays or containers holding sharp instruments that cannot be seen (e.g. sinks filled with soapy water in which sharp instruments have been). Instead, use a strainer-type basket to hold instruments, as well as forceps to remove them.
- Wear a mask, protective eyewear or face shield, and gown or jacket to protect from splashing.

Preparation and packaging

In another section of the processing area, cleaned instruments should be inspected, assembled into sets or trays, and packaged for sterilization. Critical and semi-critical instruments should be processed in a manner that will maintain sterility during storage. Suitable packaging materials include wrapped perforated instrument cassettes, peel pouches of plastic or paper, and woven or nonwoven sterilization wraps. Packaging materials should be designed for the type of sterilization process being used. Hinged instruments should be processed open and unlocked.

Sterilization

The sterilization section of the processing area should include the sterilizer and related supplies, with adequate space for loading, unloading and cool down. The area may also include biological indicators and incubators for conducting spore tests, as well as enclosed storage for sterile and single-use disposable items.

Heat-tolerant instruments are usually sterilized by steam under pressure (i.e. autoclaving), which is dependable and economical. Other means include dry heat or unsaturated chemical vapor. All sterilization should be performed by using medical sterilization equipment registered with Health Canada. Sterilization times, temperatures and other operating parameters recommended by the manufacturer of the equipment used, as well as instructions for correct use of containers, wraps, and chemical or biological indicators, should always be followed.

Instrument packs should be allowed to dry inside the sterilizer chamber before removing and handling, in order to avoid wicking of moisture and, hence, contamination with bacteria from hands.

Monitoring of sterilization must be conducted through a combination of mechanical, chemical and biological means, which evaluate both the sterilizing conditions and the procedure's effectiveness.

IMPORTANT

The information in this section of the Guidelines represents best practices for the monitoring of sterilization in the dental office, and is consistent with the recommendations of the Provincial Infectious Diseases Advisory Committee (PIDAC) and the Canadian Standards Association (CSA). These are the prevailing standards for all health care settings in Ontario, including dental offices, and may be used as a basis for auditing purposes.

1. Mechanical indicators are the gauges or displays on the sterilizer for cycle time, temperature and pressure. Some tabletop sterilizers have recording devices that print out these parameters, which is preferred. All new sterilizers should have this feature.

   Mechanical indicators must be checked and recorded for each load.

2. Chemical indicators (i.e. internal and external) use sensitive chemicals to assess physical conditions during the sterilization process. For example, heat-sensitive tape, applied to the outside of a package, changes colour rapidly when a given temperature is reached. This signifies that the package has undergone a sterilization cycle, although it does not ensure that sterilization has been achieved.

   A sterilizing agent has more difficulty penetrating a hollow object, such as a handpiece, than it does a solid object, such as a dental mirror. Air that is trapped inside these hollow areas cannot be easily removed, thus hindering the sterilizing agent's contact with the internal surface of the instrument.

   In addition, when items are packaged, the sterilizing agent takes longer to penetrate to the instruments. The packaging envelops the instruments, creating a hollow area into which the sterilizing agent must be drawn or forced in.

For these reasons, each package must have external chemical indicators. In addition, it is recommended that both internal and external chemical indicators be used to detect penetration into the package.

NOTE: Mechanical and chemical indicators do not ensure that sterilization has been achieved. They merely offer verification that the necessary conditions have been met. However, they can also provide an early warning of a problem. If either mechanical or chemical indicators demonstrate inadequate processing, then none of the items in the load should be used until they are reprocessed.

3. Biological indicators (BIs or spore tests) are the most accepted means for monitoring of sterilization, because they directly assess the procedure's effectiveness in killing the most resistant micro-organisms. The spores used are more resistant and present in greater numbers than the common microbial contaminants found on patient care items. Therefore, an inactivated BI signifies that other potential pathogens in the load have been killed.

   Include a BI each day a sterilizer is used. In addition, if a load contains implantable devices, it must be monitored with a BI, and these items should be quarantined until the test results are known. Follow the manufacturer's directions concerning the appropriate placement of the BI in the sterilizer.

IMPORTANT

The daily operation of every sterilizer must be reviewed and documented. A logbook should be kept for this purpose. Any malfunction must be noted and appropriate action taken.

In the event of a positive BI (i.e. failed spore test):

- Remove the sterilizer from service.
- Review all records of mechanical and chemical indicators since the last negative BI, as well as sterilization procedures to determine whether operator error could be responsible. In the absence of a mechanical failure, common reasons for a positive BI include overloading, failing to provide adequate package separation, and using incorrect or excessive packaging material.
- Repeat the spore test immediately. This should be done after addressing any procedural problems and correctly loading the sterilizer, and by using the same cycle that produced the failure. While waiting for the repeat test results, the sterilizer should remain out of service. If the dental office does not have a second sterilizer, a colleague may be able to assist or a dental supply company may lend one.

- If the repeat spore test is negative, and mechanical and chemical indicators demonstrate adequate processing, then the sterilizer may be put back into service.
- If the repeat spore test is positive, and all sterilization procedures have been performed correctly, then the sterilizer should remain out of service until it has been inspected, repaired and successfully rechallenged with BI tests in three consecutive empty chamber sterilization cycles. In addition, all items from suspect loads dating back to the last negative BI should be recalled, to the extent possible, and reprocessed.

Storage

Sterile and single-use disposable items should be stored in an enclosed space, such as closed or covered cabinets. They should not be stored under sinks or in other locations where they might become wet and contaminated.

Storage practices for packaged sterilized instruments may be either date or event-related. Dating assists in the recall of instruments should concerns arise with the results of sterilization tests. Some health care facilities date every sterilized package and use shelf-life practices (e.g. "first in, first out"). Others use event-related practices. The latter approach recognizes that the packaged instruments should remain sterile indefinitely, unless an event causes them to become contaminated (e.g. torn or wet packaging).

Packages containing sterile instruments should be inspected before use to verify barrier integrity and dryness. If packaging is compromised, the instruments should be cleaned, packaged and sterilized again.

IMPORTANT

Critical and semi-critical instruments should be processed in a manner that will maintain sterility during storage. This includes ensuring that the integrity of the package is maintained.

Sterilization of Unpackaged Instruments

An unpackaged cycle (sometimes called flash sterilization) is a method for sterilizing patient care items for immediate use. Unpackaged sterilization should be used only under certain conditions:

- thorough cleaning and drying of instruments precedes the unpackaged cycle;
- mechanical parameters are checked and an internal chemical indicator is used for each cycle;
- care is taken to avoid thermal injury to staff or patients;
- items are transported aseptically to the point of use to maintain sterility.

When sterile items are left open to the air, they can quickly become contaminated. Therefore, critical instruments that are sterilized unpackaged should be used immediately and not stored. Sufficient inventories of critical instruments should be maintained to avoid the need for flash sterilization.

Semi-critical instruments that are sterilized unpackaged on a tray or in a container system should be used immediately or within a short time. Storage, even temporary, of unpackaged semi-critical instruments is discouraged because it permits exposure to dust, airborne organisms and other unnecessary contamination before use on patients.

All implantable devices should be quarantined after sterilization until the results of biological monitoring are known. Accordingly, unpackaged or flash sterilization of implantable items is inadequate and must not be used.

Flash sterilization should not be routinely used in the dental office.

IMPORTANT

Historically, bead sterilizers have been used in dentistry to treat small metallic instruments, such as endodontic files. These devices cannot assure sterility, creating the risk of cross-contamination if instruments are used between patients. Therefore, the use of bead sterilizers is not an acceptable method of sterilization.

Processing of Heat-Sensitive Items

Semi-critical items that are heat-sensitive should be cleaned and then receive high-level disinfection, which may be achieved by immersion in a liquid chemical germicide (e.g. 2% glutaraldehyde, 7% accelerated hydrogen peroxide, 6% hydrogen peroxide, 0.2% peracetic acid and 0.55% ortho-phthalaldehyde).

Liquid chemical germicides are highly toxic and their effectiveness cannot be verified with biological indicators. Accordingly, the manufacturer's instructions regarding dilution, instrument preparation, immersion time, temperature and the changing of solutions should be followed carefully. In addition, appropriate precautions should be taken to safeguard staff, including the use of closed containers to limit vapour release, adequate ventilation and chemically-resistant gloves, aprons, goggles and face shields. Following liquid immersion, instruments should be thoroughly rinsed with sterile water to remove toxic or irritating residues and then dried with clean towels. Liquid chemical germicides should not be used for applications other than those indicated in their label instructions, and they should NOT be used as an environmental surface disinfectant or instrument-holding solution.

The majority of semi-critical items used in dentistry are available in heat-tolerant or disposable alternatives. Avoid the use of heat-sensitive semi-critical items that must be processed with liquid chemical germicides.

Processing of Non-Critical Items

Non-critical items pose the least risk of transmission of infection, as they either have no contact with the patient or contact only intact skin, which serves as an effective barrier to micro-organisms. Non-critical items should be cleaned after use or, if contaminated, cleaned and then disinfected with an appropriate low-level disinfectant (e.g. chlorine-based products, 0.5% accelerated hydrogen peroxide, 3% hydrogen peroxide, 60 to 95% alcohols, iodophors, phenolics and quaternary ammonium compounds).

Cleaning and disinfection of some non-critical items may be difficult or could damage surfaces. It may be preferable to use disposable barriers to protect these surfaces.

Equipment Use and Preventive Maintenance

Tabletop sterilizers undergo frequent use, and wear and tear. The manufacturer's recommendations should be consulted for guidance on a preventive maintenance program, including regular inspection of gaskets and seals.

Office Cleaning, Housekeeping and Management of Waste

General Considerations

Generally speaking, environmental surfaces in the dental operatory do not contact the patient and do not pose a direct risk to their safety. However, such surfaces as light handles and drawer knobs can become contaminated during patient care, acting as reservoirs of micro-organisms. Transmission usually occurs through hand contact or by touching the surface with a contaminated instrument. When this happens, micro-organisms can be transferred to other instruments, other environmental surfaces, or to the hands, nose, mouth and eyes of patients and OHCWs.

Proper hand hygiene and the use of personal protective equipment are essential to minimizing the transfer of micro-organisms. In addition, the use of barriers or cleaning and disinfection of environmental surfaces will guard against such transferral.

Environmental surfaces are divided into **clinical contact surfaces and housekeeping surfaces.**

Clinical Contact Surfaces

Clinical contact surfaces are frequently touched in the course of patient care. They can become contaminated by direct spray or splatter generated during dental procedures, or by contact with an OHCW's gloved hands or contaminated instruments. Examples of clinical contact surfaces include:

- chair controls and switches
- light handles and switches
- radiography equipment
- chairside computer keyboards and monitors
- reusable containers of dental materials
- drawer and faucet handles
- countertops
- pens
- telephones
- doorknobs

Clinical contact surfaces should be cleaned and disinfected between patients and at the end of the workday using an appropriate low-level disinfectant. To facilitate this, treatment areas should be well-organized and kept free of unnecessary equipment and supplies, especially on countertops. Staff should take appropriate precautions, including wearing gloves, while cleaning and disinfecting surfaces to prevent occupational exposure to infectious agents and hazardous chemicals.

Alternatively, clinical contact surfaces and equipment can be protected from contamination by the use of barriers. Barriers are particularly effective for those surfaces that are difficult to clean and disinfect, due to their shape, surface or material characteristics. Suitable barrier materials include:

- clear plastic wrap
- plastic bags
- plastic sheets
- plastic tubing
- plastic-backed paper
- other moisture-proof materials

Since barriers can become contaminated during dental procedures, they should be removed and discarded between patients using gloves. Following barrier removal, the underlying surfaces should be examined to ensure they did not inadvertently become contaminated. Those that did should be cleaned and disinfected. Otherwise, clean barriers should be placed prior to the next patient.

Housekeeping Surfaces

Housekeeping surfaces, such as floors and walls, have a limited risk of disease transmission. Accordingly, these surfaces usually require only periodic cleaning with dilute detergents. If a surface is suspected to have become contaminated with blood, saliva or other bodily fluids, it should be cleaned first and then disinfected with an appropriate low-level disinfectant (e.g. household bleach diluted 1:50 or 1000 ppm). OHCWs should take appropriate precautions, including wearing gloves, for this purpose.

From a general housekeeping point of view, floors should be cleaned regularly and spills should be cleaned up promptly. Cleaning tools, such as mop heads, should be rinsed after use and allowed to dry before they are reused. Fresh cleaning solutions should be made each day, discarding any that remain and allowing the container to dry between uses. In this way, the risk of these solutions becoming reservoirs for micro-organisms can be minimized.

IMPORTANT

Carpeting and cloth furnishings are difficult to clean and cannot be reliably disinfected. They should not be used in patient treatment or instrument preparation areas.

Management of Waste

For the purposes of infection control, waste from dental offices can be divided into two categories: **biomedical waste** and **general office waste**. Ontario legislation dictates that biomedical waste must be handled and disposed of in a manner that avoids transmission of potential infections. Therefore, it is necessary to understand the differences between these types of waste, so that they can be separated, stored and disposed of in an appropriate matter.

Biomedical waste

Biomedical waste is classified as hazardous waste and must not be disposed with regular garbage. It must be handled safely to protect human health and the environment. In general, all biomedical waste must be:

- stored in colour-coded containers that are marked with the universal biohazard symbol;
- released to an approved biomedical waste carrier for disposal.

Biomedical waste can be further divided into anatomical and non-anatomical waste.

i) Anatomical waste (i.e. human tissue)

The generation of anatomical waste is normally limited to oral surgeons and periodontists, such as in the course of harvesting human tissue for treatment. Anatomical waste must be separated and collected in a RED liner bag that is labelled with the universal biohazard symbol. This waste must then be stored in an enclosed storage area, such as a stand-alone refrigeration/freezer unit, that is marked "Biomedical Waste Storage Area" and displays the universal biohazard symbol. This storage area must be separate from other supply areas, locked and maintained at a temperature at or below 4 degrees Celsius. Once accumulated, anatomical waste must only be released to an approved biomedical waste carrier for disposal.

NOTE: Extracted teeth are not classified as biomedical waste and should be handled differently. Please refer to the section on page 34.

ii) Non-anatomical waste (i.e. sharps and blood-soaked materials)

Sharps (e.g. needles, syringes with needles, scalpel blades, clinical glass) must be separated and collected in a YELLOW puncture-resistant, leak-proof container that is specifically designed for their management and labelled with the universal biohazard symbol. Once the container has reached the designated capacity, it must only be released to an approved biomedical waste carrier for disposal.

Non-anatomical waste includes blood-soaked materials that release liquid or semi-liquid blood if compressed. It must be separated and collected in a YELLOW liner bag that is labelled with the universal biohazard symbol. If blood-soaked materials are to remain on site for more than 4 days, they must be stored like anatomical waste in a refrigerated storage area that is marked "Biomedical Waste Storage Area" and displays the universal biohazard symbol. Once accumulated, blood-soaked materials must only be released to an approved biomedical waste carrier for disposal.

In most instances, items such as gauze, cotton rolls and examination gloves that have come in contact with blood, saliva or other bodily fluids are NOT classified as biomedical waste. Provided that the item does not release liquid or semi-liquid blood if compressed, it should be considered as general office waste.

General office waste

General office waste is no more infective than residential waste. Therefore, the majority of soiled items generated in dental offices do not require any special disposal methods, other than careful containment and removal. Some recommendations for all types of general office waste include:

- Ensure all garbage containers are waterproof and have tight-fitting lids, preferably operated by a foot pedal. Open wastebaskets might be dangerous if children are around them.
- Use plastic bags to line the garbage containers. The use of double-bagging is not necessary, unless the integrity of the bag is jeopardized or the outside is visibly soiled.
- Do not overfill garbage containers.
- Do not place sharp, hard or heavy objects into plastic bags that could cause them to burst.

Certain types of waste generated in dental offices can be detrimental to the environment if not properly handled, and their disposal is subject to provincial regulations and municipal bylaws. In addition to biomedical waste, this includes waste that contains mercury, silver, lead and other chemicals. For further information regarding the disposal of these types of waste, refer to the Best Management Practices Flowcharts, available on the College's website.

Handling of extracted teeth

Extracted teeth may be returned to the patient without any special considerations for infection prevention and control, other than simple cleaning of visible blood and gross debris.

If being discarded, extracted teeth without amalgam fillings may be disposed as general office waste. Extracted teeth with amalgam fillings should be treated as mercury-containing waste and disposed accordingly.

If being sent to a dental laboratory for shade or size comparisons, extracted teeth should be cleaned and surface disinfected with an appropriate low-level disinfectant. Extracted teeth being collected for use in pre-clinical education training should be cleaned of visible blood and gross debris, and maintained in a hydrated state in a closed container during transportation.

Equipment and Area Specific Practice Guidelines

Dental Unit Waterlines

Dental unit waterlines are made of narrow-bore plastic tubing that carry water to handpieces, ultrasonic instruments and air/water syringes. They can become heavily colonized with waterborne micro-organisms, including bacteria, fungi and protozoa, which form a biofilm on the interior surface of the waterline. However, they are not a supportive environment for bacteria commonly found in the oral cavity.

High numbers of these opportunistic micro-organisms are not necessarily dangerous to the general population, unless the patient or OHCW is a susceptible host. This includes persons who are immunocompromised (e.g. persons living with HIV, persons undergoing oncology treatment or organ transplantation procedures), and those with cystic fibrosis, chronic bronchitis and bronchiectasis.

The potential risk of infection from dental unit waterline micro-organisms can be effectively reduced to counts similar to those in potable water standards by following regular waterline maintenance procedures.

For offices using communal water supplies:

- Waterline heaters should not be used, as the heat encourages the growth of micro-organisms.
- All waterlines should be purged at the beginning of each workday by flushing them thoroughly with water for at least 2 to 3 minutes. Before purging is carried out, handpieces, air/water syringe tips and ultrasonic tips should be removed from the waterlines.
- Handpieces using water coolant should be run for 20 to 30 seconds after patient care in order to purge all potentially contaminated air and water. The handpiece should then be removed and, following cleaning and disinfection of clinical contact surfaces, another sterilized handpiece may be attached for use with the next patient.
- Sterile water or sterile saline should be used when irrigating open surgical sites and whenever bone is cut during invasive surgical procedures. Appropriate devices, such as bulb syringes or single-use disposable products, should be used to deliver sterile irrigation solutions.

For offices using closed or other water delivery systems:

- The manufacturer's instructions related to dental units and equipment should be followed for daily and weekly maintenance.

Dental Handpieces and Other Intraoral Devices

Several dental devices that contact mucous membranes are attached to the air or waterlines of the dental unit, including:

- high and low-speed handpieces;
- prophylaxis angles;
- ultrasonic and sonic instruments;
- air abrasion devices;
- air/water syringe tips.

These devices have the potential of retracting oral fluids into their internal compartments, which can then be expelled into the oral cavity of another patient during subsequent use. In order to flush out any patient material that might have entered the turbine or air and waterlines, these devices should be activated to discharge air and water for a minimum of 20 to 30 seconds after each patient use.

Dental handpieces and other intraoral devices that are attached to air or waterlines should be sterilized after each patient use. The manufacturer's instructions for cleaning, lubricating and sterilizing these devices should be strictly followed.

Some instrument components are permanently attached to dental unit waterlines; for example, electric handpiece motors, handles for ultrasonic devices, and attachments for saliva ejectors, high-volume suction and air/water syringes. Such components should be covered with barriers that are changed after each patient use. If the item is contaminated or suspected to have been contaminated, it should be cleaned and disinfected with an appropriate low-level disinfectant before the next patient is seated in the operatory.

Saliva Ejectors

Backflow from a low-volume saliva ejector can occur when a patient closes his or her lips around the tip, forming a seal that creates a partial vacuum. This backflow can result in micro-organisms from the suction lines entering the patient's mouth, a potential source of cross-contamination. Therefore, OHCWs should be careful not to allow

patients to close their mouths over the saliva ejector tip. In addition, specially designed saliva ejectors exist that do not allow a negative pressure to form around the tip.

Suction lines should be purged between patients by aspirating water or an appropriate cleaning solution, thereby removing loosely adherent debris and micro-organisms. At least once per week, suction lines should be flushed out with an enzymatic cleaner or appropriate cleaning solution.

Single-Use Devices

Single-use (i.e. disposable) devices are designed to be used on one patient and then discarded, and not to be reprocessed and used on another patient. Examples include syringe needles, prophylaxis cups and brushes, and certain orthodontic brackets. Some items, such as prophylaxis angles, high-volume suction tips and air/water syringe tips are commonly available in single-use forms.

Single-use devices are usually not heat-tolerant and cannot be reliably cleaned or disinfected. Therefore, they should be disposed of appropriately after use.

Dental Radiography Equipment

When taking radiographs, appropriate steps should be taken to prevent cross-contamination of equipment and environmental surfaces with blood or saliva. This includes the use of gloves when taking radiographs and handling contaminated film packets. Accessories for taking intraoral radiographs (e.g. film-holders and positioning devices) should be sterilized between patients.

Radiography equipment (e.g. tube heads and control panels) should be protected with surface barriers that are changed after each patient use. If barriers are not used, equipment that has come into contact with the OHCW's gloved hands or contaminated film packets should be cleaned and disinfected after each patient use.

After a radiograph is exposed, the film packet should be dried with disposable gauze or a paper towel to remove blood or excess saliva and then placed in a container, such as a disposable cup, for transport to the developing area.

The film packet may be disinfected with an appropriate low-level disinfectant before opening to develop the film. Alternatively, a contaminated film packet may be opened using gloves. The film should be dropped onto a clean surface without touching it and the empty packet should be discarded, being careful to avoid contamination. Gloves should then be removed before developing the film.

Another option is to use a barrier pouch to prevent contamination of the film packet. If used, the film packet should be carefully removed from the pouch to avoid contamination and then placed in a container for transport to the developing area.

Care should be taken to avoid contamination of the developing equipment. Protective barriers should be used or, alternatively, any surfaces that become contaminated should be cleaned and disinfected with an appropriate low-level disinfectant.

Digital Radiography Sensors and Intraoral Cameras

Digital radiography sensors and intraoral cameras come into contact with mucous membranes. Accordingly, these devices should be cleaned and either heat-sterilized or disinfected between patients. Alternatively, they should be protected with barriers to reduce gross contamination. However, following barrier removal, the underlying surfaces should be examined and if found contaminated, they should be cleaned and disinfected.

As with other dental equipment, the manufacturer's instructions should be followed regarding the use of appropriate barriers, and recommended sterilization and disinfection procedures for these devices.

Lasers and Electrosurgery Equipment

During surgical procedures, the use of lasers and electrosurgery equipment causes thermal destruction of tissues, creating a smoke by-product that may contain viable microorganisms. In addition, lasers transfer electromagnetic energy into the tissues, resulting in the release of a heated plume that includes particles, gases, tissue debris, viruses and offensive odours.

OHCWs should take appropriate precautions to avoid inhaling or otherwise coming into contact with laser plumes and electrosurgery smoke, including the use of:

- routine practices (e.g. appropriate masks and face shields);
- central room suction units with in-line filters to collect particulate matter;
- dedicated mechanical smoke exhaust systems with a high-efficiency filter to remove substantial amounts of laser plume particles.

Dental Laboratory Asepsis

Dental prostheses and appliances, as well as items used in their fabrication (e.g. impressions, occlusion rims, bite registrations), are potential sources for cross-contamination. They should be handled in a manner that prevents exposure of patients, OHCWs or the office environment to infectious agents.

Effective communication and coordination between the dental office and the commercial dental laboratory will ensure that:

- appropriate cleaning and disinfection procedures are performed in the dental office or the commercial dental laboratory;
- materials are not damaged or distorted because of overexposure to disinfectants;
- disinfection procedures are not unnecessarily duplicated.

Impressions, prostheses or appliances should be cleaned and disinfected as soon as possible after removal from the patient's mouth, before drying of blood or other organic debris. The manufacturer's instructions regarding the stability of specific materials during disinfection should be consulted. Wet impressions or appliances should be placed in an impervious bag prior to transportation to a commercial dental laboratory.

Heat-tolerant items used in the mouth, such as impression trays or face bow forks, should be sterilized after each patient use. Other items that do not normally come in contact with the patient, but frequently become contaminated, such as articulators and case pans, should be cleaned and disinfected according to the manufacturer's instructions.

Finished prostheses and appliances delivered to the patient should be free of contamination. This can be accomplished with an appropriate low-level disinfectant by either the commercial dental laboratory or dental office.

Items used in the typical in-office dental laboratory, such as burs, polishing points, rag wheels, laboratory knives and dental lathes, frequently become contaminated during adjustments to prostheses and appliances. These items should be sterilized, cleaned and disinfected or discarded after use.

Handling of Biopsy Specimens

To protect persons handling and transporting biopsy specimens, they must be placed in a sturdy, leak-proof container that has a secure lid and is clearly labelled with the universal biohazard symbol.

Care should be taken when collecting the specimen to avoid contaminating the outside of the container. If the outside of the container is suspected to be or has been contaminated, it should be cleaned and disinfected or placed in an impervious bag prior to transportation.

Biopsy kits, along with instructions for proper handling and shipping of specimens, can be obtained from both Ontario dental faculties:

Oral Pathology Laboratory
Faculty of Dentistry, University of Toronto
416-979-4920, ext. 4543

Oral Pathology Diagnostic Services
Department of Pathology, University of Western Ontario
519-661-2111, ext. 86402

General and Surgical Aseptic Technique

The mouth is considered a clean-contaminated environment and the patient's own defences (e.g. antibacterial enzymes in saliva and immune responses) play a large role in healing and preventing infection after a dental procedure. Infection is usually the result of the patient's own oral flora.

Aseptic technique is a term used to describe practices that prevent microbial contamination. These practices include environmental cleaning, effective hand hygiene, wearing appropriate clinical attire (e.g. gloves, protective eyewear, masks, gowns), proper handling of clean instruments, wrapping and sterilization, proper handling of sterile instruments as they are unwrapped, preventing sterile instruments from being contaminated from environmental sources and properly administering medicines. Surgical aseptic technique refers to practices that render and maintain objects and the surrounding area maximally free of micro-organisms, prevent contamination of a wound, isolate the operative site from the surrounding unsterile physical environment, and create a sterile field in order to perform surgery as safely as possible (e.g. draping where appropriate).

For minor dental procedures, hand hygiene is performed, sterile instruments are placed at a clean chair-side area and care is taken to avoid placing unsterile equipment near sterile items. Depending on the complexity of the procedure, the chair-side area is separated into clean or sterile versus contaminated areas. Once the procedure begins, items are no longer sterile due to contamination with organisms from the patient's mouth, but the goal is to keep the tray and instruments as clean as possible, and avoid contamination from other sources. When hands or gloves contact certain surfaces that are frequently touched by others, micro-organisms can be transferred to instruments or other environmental surfaces, and to the eyes, nose or mouth.

For major dental procedures (similar to other surgical procedures), the patient is prepared, hand hygiene is performed, sterile gloves are worn, and all items that go onto the sterile field are kept sterile, including instruments, materials and supplies that come in contact with the surgical site. Every item handled by the dental surgeon should be sterile or have a protective sterile covering.

In addition to following routine practices, and performing appropriate disinfection and sterilization of dental instruments and devices, OHCWs reduce the risk of transferring bacteria from the environment to patients by adhering to some basic steps:

1. Prepare and organize work procedures so that all of the required equipment is gathered for the task.
2. Sterile instruments and devices should be stored in an enclosed space, such as closed or covered cabinets. They should remain wrapped until ready for use.
3. Spatially separate work areas and equipment into clean versus contaminated, sterile versus unsterile.
4. Use protective covers and barriers according to approved office-specific work procedures.
5. If an item is needed for a procedure, but not on the procedure tray, it should only be retrieved using transfer forceps or by first ensuring that the OHCW's hands are clean.
6. Gloves should be applied just before initiating the procedure for the patient.
7. If you observe or suspect that gloves have become torn or perforated, remove them, perform hand hygiene and reglove where appropriate.

Maintaining aseptic technique is a co-operative responsibility of the entire dental team. Each member must develop a professional conscience for infection prevention and control, as well as a willingness to supervise and be supervised by others regarding aseptic technique.

IMPORTANT

If an item is needed for a procedure, but not on the procedure tray, it should only be retrieved using transfer forceps or by first ensuring that the OHCW's hands are clean. Transfer forceps should be readily available at all times.

Glossary of IPAC Terms

Additional precautions: A term used to describe infection prevention and control interventions that are taken in addition to routine precautions for certain pathogens or clinical presentations, based on the method of transmission (e.g. contact, droplet, airborne).

Asepsis: The absence of pathogenic (i.e. disease-producing) micro-organisms.

Aseptic technique: A term used to describe practices that prevent microbial contamination.

Biological indicator (BI): A device that is used to monitor the sterilization process, which consists of a standardized population of bacterial spores known to be resistant to the mode of sterilization being monitored. BIs indicate that all the parameters necessary for sterilization were present.

Chemical indicator (CI): A monitoring device that is designed to respond with a chemical or physical change to one or more of the sterilization process parameters. CIs do not verify sterility, but they do assist in the detection of potential sterilization failures, which could result from incorrect packaging, incorrect loading of the sterilizer or equipment malfunction. There are several classes of CIs:

Process indicator (Class 1): An external indicator that is used to demonstrate that an item has been exposed to a sterilization process, and to distinguish between processed and non-processed items. Class 1 CIs are usually applied to or visible on the outside of packages (e.g. sterilization tape or packaging printed with colour-changing inks). Class 1 CIs are directly exposed to the sterilization environment, so they usually fail only when there is a gross malfunction of the sterilizer.

Specialty indicator (Class 2): An indicator that is designed for use in specific test procedures in special sterilizers (e.g. dynamic air-removal sterilizers). Examples of Class 2 CIs include Bowie Dick and Dart products, which are used for steam sterilizers.

Single-parameter indicator (Class 3): An internal indicator that responds to only one critical parameter of the sterilization process, usually time or temperature. It is important to note that the sterilization process has more than one critical parameter, all of them must be reached for sterilization to occur.

Multi-parameter indicator (Class 4): An internal indicator that responds to two or more critical parameters of the sterilization process.

Integrating indicator (Class 5): An internal indicator that responds to all critical parameters of the sterilization process. Class 5 CIs are correlated to the performance of biological indicators (BIs).

Cleaning: The physical removal of foreign material (i.e. organic and inorganic matter) from an object or item using water and mechanical action, with or without detergents. Cleaning removes rather than kills micro-organisms. Cleaning and then rinsing is performed before further processing.

Decontamination: A process of cleaning, followed by inactivation of pathogenic micro-organisms from objects to render them safe to handle.

Disinfection: A process that kills most pathogenic micro-organisms, but rarely kills all bacterial spores. Disinfection is achieved through pasteurization or the use of some chemical agents (i.e. disinfectants). The term falls between physical cleaning and sterilization. There are various levels of disinfection:

High-level disinfection (HLD): A process capable of killing vegetative bacteria, mycobacteria (including Mycobacterium tuberculosis), fungi, and enveloped and non-enveloped viruses, as well as some, but not necessarily all bacterial spores. HLD is considered to be the minimum level of decontamination required for semi-critical patient care items. HLD is performed after items are thoroughly cleaned and rinsed. HLDs include 2% glutaraldehyde, 7% accelerated hydrogen peroxide, 6% hydrogen peroxide, 0.2% peracetic acid and 0.55% ortho-phthalaldehyde.

Low-level disinfection (LLD): A process capable of killing most vegetative bacteria, as well as some fungi and enveloped viruses. LLD is the level of decontamination required for non-critical patient care items and some environmental surfaces. LLD is performed after items are thoroughly cleaned and rinsed. LLDs include chlorine-based products (e.g. diluted household bleach), 0.5% accelerated hydrogen peroxide, 3% hydrogen peroxide, 60 to 95% alcohols, iodophors, phenolics and quaternary ammonium compounds.

Exposure-prone procedures: A term used for the purpose of managing the risk of transmitting blood-borne pathogens. They are procedures during which transmission of HBV, HCV or HIV from a health care worker to patients is most likely to occur. Exposure-prone procedures include:

- digital palpation of a needle tip in a body cavity, or the simultaneous presence of the health care worker's fingers and a needle or other sharp object in a blind or highly confined anatomic site;
- repair of major traumatic injuries;
- major cutting or removal of any oral or perioral tissue, including tooth structures.

Personal protective equipment (PPE): Specialized clothing or equipment worn by staff for protection against hazards.

Reusable device: A device that has been designed by the manufacturer, through the selection of materials and/or components, to be reused.

Risk class: The class assigned to patient care items based on the potential risk for infection associated with their intended use. The risk class determines the processing requirements of an item. The risk classes are as follows:

Critical items: Items that penetrate soft tissue or contact bone. Critical items present a high risk of infection if the item is contaminated with any type of microorganism, including bacterial spores. Processing of critical items involves meticulous cleaning followed by sterilization.

Semi-critical items: Items that contact mucous membranes or non-intact skin, but ordinarily do not penetrate them. Processing of semi-critical items involves meticulous cleaning followed by sterilization (preferred) or high-level disinfection (minimum).

Non-critical items: Items that contact intact skin, but not mucous membranes, or do not directly contact the patient. Processing of non-critical items involves cleaning followed by low-level disinfection.

Routine practices: A term used to describe basic standards of infection prevention and control that are required for safe patient care. Routine practices are based on the concept that all patients are potentially infective, even when asymptomatic, and that the same safe standards of practice should routinely apply to contact with blood, body fluids and secretions (e.g. saliva), mucous membranes and non-intact skin.

Single-use/disposable device: A device that has been designed by the manufacturer for single-use only.

Sterilization: A validated process that kills all pathogenic micro-organisms, including bacteria, fungi, viruses and spores.

Ultrasonic cleaner: A machine that cleans patient care items by the cavitations produced by ultrasound waves.

APPENDIX 1

Methods for Cleaning, Disinfection and Sterilization of Patient Care Items and Environmental Surfaces

Process	Result	Examples for Dentistry	Specific Indications	Comments
Sterilization	Kills all forms of pathogenic micro-organisms, including bacteria, fungi, viruses and spores.	Steam Dry heat	Critical and semi-critical items	Steam sterilization is the preferred method. Sterilization process must be audited and monitored with mechanical, chemical and biological indicators.
High-level disinfection (HLD) All disinfectants must have a Drug Identification Number (DIN) from Health Canada.	Kills vegetative bacteria, mycobacteria, fungi, enveloped and non-enveloped viruses, but not necessarily bacterial spores.	2% glutaraldehyde 7% accelerated hydrogen peroxide, 6% hydrogen peroxide 0.2% peracetic acid 0.55% ortho-phthalaldehyde	Heat-sensitive semi-critical items	**Not for use on environmental surfaces.** Follow manufacturer's instructions regarding dilution, instrument preparation, immersion time, temperature and changing of solutions. Glutaraldehyde is non-corrosive to metals and compatible with most materials. Extremely irritating to skin and mucous membranes. Use in well-ventilated areas. Hydrogen peroxide is active in presence of organic matter, but is corrosive to aluminum, brass, copper and zinc.
Low-level disinfection (LLD) All disinfectants (except household bleach) must have a Drug Identification Number (DIN) from Health Canada.	Kills most vegetative bacteria, as well as some fungi and enveloped viruses. **Cannot** be relied on to kill mycobacteria, including Mycobacterium tuberculosis or bacterial spores.	Chlorine-based products (e.g. diluted sodium hypochlorite or household bleach) 0.5% accelerated hydrogen peroxide, 3% hydrogen peroxide 60 to 95% alcohols Some iodophors, phenolics and quaternary ammonium compounds	Non-critical items and environmental surfaces	Follow manufacturer's instructions regarding concentration and contact time. Diluted household bleach is inexpensive and readily available, but must be prepared daily. Items and surfaces must be cleaned first, as chlorine-based products are inactivated by organic material. Corrosive to metals and may destroy fabrics. Hydrogen peroxide is active in presence of organic matter, but is corrosive to aluminum, brass, copper and zinc. Alcohols are fast-acting, but are flammable and evaporate quickly. Items and surfaces must be cleaned first, as alcohols are inactivated by organic material. May harden plastic and rubber. Quaternary ammonium compounds are used for disinfecting non-critical equipment and environmental surfaces, but not instruments. They require careful dilution, as they may support microbial growth.
Cleaning	Physical removal of soil, dust and foreign material	Soap and water, detergents and enzymatic cleaners 0.5% accelerated hydrogen peroxide Quaternary ammonium compounds	All reusable items	Follow manufacturer's instructions regarding concentration and contact time.

APPENDIX 2

Additional Resources and Reference Materials Available on the Internet

Best Management Practices Flowcharts, 2003
Royal College of Dental Surgeons of Ontario
www.rcdso.org/pubs_resources/practice_resources/amalgam_waste.html

Best Practices for Cleaning, Disinfection and Sterilization in All Heath Care Settings, 2006
Provincial Infectious Diseases Advisory Committee
Ontario Ministry of Health and Long-Term Care
www.health.gov.on.ca/english/providers/program/infectious/diseases/best_prac/bp_cds_2.pdf

Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings, 2009
Provincial Infectious Diseases Advisory Committee
Ontario Ministry of Health and Long-Term Care
www.health.gov.on.ca/english/providers/program/infectious/diseases/best_prac/bp_enviro_clean.pdf

Best Practices for Hand Hygiene in All Heath Care Settings, 2009
Provincial Infectious Diseases Advisory Committee
Ontario Ministry of Health and Long-Term Care
www.health.gov.on.ca/english/providers/program/infectious/diseases/best_prac/bp_hh_20080501.pdf

Canadian Immunization Guide for 2006
Public Health Agency of Canada
www.phac-aspc.gc.ca/publicat/cig-gci/pdf/cig-gci-2006_e.pdf

Decontamination of Reusable Medical Devices (CSA Z314.8-08), 2008
Canadian Standards Association
www.csa.ca

Guideline C-4: The Management of Biomedical Waste in Ontario, 2001
Ontario Ministry of the Environment
www.ene.gov.on.ca/envision/env_reg/er/documents/2001/RA01E0023_g2.pdf

Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008
Centers for Disease Control and Prevention
www.cdc.gov/ncidod/dhqp/pdf/guidelines/Disinfection_Nov_2008.pdf

Guidelines for Infection Control in Dental Health-Care Settings, 2003
Centers for Disease Control and Prevention
www.cdc.gov/mmwr/PDF/rr/rr5217.pdf

Infection Control in the Physician's Office, 2004
College of Physicians and Surgeons of Ontario
www.cpso.on.ca/uploadedFiles/policies/guidelines/office/Infection_Controlv2.pdf

Infection Prevention and Control in the Dental Office, 2006
Canadian Dental Association
www.cda-adc.ca/en/dental_profession/practising/resources/infection_control.asp

Routine Practices and Additional Precautions in All Heath Care Settings, 2009
Provincial Infectious Diseases Advisory Committee, Ontario Ministry of Health and Long-Term Care
www.health.gov.on.ca/english/providers/program/infectious/diseases/best_prac/bp_routine.pdf

Workplace Hazardous Materials Information System (WHMIS): A Guide to the Legislation, 2008
Ontario Ministry of Labour
www.labour.gov.on.ca/english/hs/pubs/whmis/index.php

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The Dentist with Blood-Borne Viral Infection: What are the Risks to Patients and What is an Appropriate Approach to the Dentist?

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Executive Summary

The risk of a dentist transmitting a blood-borne viral (BBV) infection to a patient is low and has fallen in the past two decades as increasingly effective methods of prevention and treatment have been developed and utilized. However, there are multiple documented cases in which dentists have transmitted hepatitis B virus to patients, and one dentist transmitted HIV to six patients. To date, there is no documented case of transmission of hepatitis C virus (HCV) from a dentist to a patient, but it is a possibility, given that other health care workers have transmitted HCV to patients during exposure-prone procedures (EPPs).

Recommendation 1: *The policies governing dentist screening for BBV and the management of BBV-infected dentists should be evidence-based.*

Recommendation 2: *Dental regulatory bodies should develop policies that encourage a safe working environment and maximize the use of measures to prevent BBV transmission. Some of these opportunities include but are not limited to 1) mandating the use of Standard Precaution; 2) reporting all occupational blood exposures to and from patients; and 2) identifying additional financial resources to support BBV-infected dentists who face practice restrictions.*

Recommendation 3: *When dentist-to-patient blood exposure occurs during an EPP, the involved dentist and patient should both be tested for BBVs. If a patient is exposed to blood from a BBV-infected dentist, the patient should be told about the exposure as well as the specific BBV, and the estimated risk of transmission. Appropriate follow-up of the patient and the dentist should be provided. Both the patient and the dentist should be offered baseline and follow-up testing, and where appropriate, postexposure prophylaxis, ideally at no cost to the patient or dentist.*

Recommendation 4: *The available evidence does not support mandatory testing for BBVs for dentists who do not perform EPPs.*

Recommendation 5: *Current data support mandatory testing of dentists who perform EPPs for immunity to HBV (presence of anti-HBs).*

Recommendation 6: *Current data do not support mandatory HIV testing of dentists who perform EPPs.*

Recommendation 7: *Current data do not support mandatory HCV testing of dentists who perform EPPs.*

Recommendation 8: *For BBV-infected dentists who do not perform EPPs, there are no grounds to restrict their practice on account of the BBV infection, provided that they adhere to Standard Precautions.*

Recommendation 9: *HIV-infected dentists should not perform EPPs, until they are on antiretroviral therapy (ART) and their plasma HIV RNA is undetectable. Once documented to have undetectable plasma HIV RNA on ART, HIV-infected dentists should be permitted to perform EPPs using double gloves with the*

proviso that their personal physician provides regular (every 6 months) confirmation to the dental regulatory agency that his/her plasma HIV RNA is consistently undetectable.

Recommendation 10: *HBV-infected dentists with plasma HBV DNA over 2000 IU/mL should not perform EPPs, except on patients who are HBV immune (anti-HBs positive) or HBV infected (HBsAg positive), until or unless their infectivity status changes- whether by natural immunity or from antiviral therapy. HBV-infected dentists with plasma HBV DNA consistently below 2000 IU/mL should be permitted to perform EPPs using double gloves and Standard Precautions, regardless of their HBeAg status, with the proviso that their personal physician provides regular (every 6 months) confirmation that his/her plasma HBV DNA is consistently suppressed below this level to their dental regulatory agency.*

Recommendation 11: *HCV RNA positive dentists should not perform EPPs. They may resume EPPs once an HCV RNA test done at least 12 weeks after completion of treatment is confirmed to be negative.*

Introduction

The recommendations for the management of health care workers (HCWs) with blood-borne viral (BBV) infections are evolving. In 1998, Health Canada published the proceedings of a Canadian consensus conference on infected HCWs and risk for transmission [1]. Their recommendations were subsequently modified by the Canadian Dental Association and the Canadian Medical Association. Since that time, there have been significant advances in knowledge about BBVs and changes in the dental licensing environment. To guide policy development in this evolving area, the authors of this paper, a panel of specialists from three relevant medical and dental specialties was convened by the Royal College of Dental Surgeons of Ontario (RCDSO). The authors undertook a comprehensive literature review to create evidence-based recommendations for the management of dentists infected with hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV). The authors developed the recommendations independent of the RCDSO. The RCDSO provided background information outlining the need for such guidelines and logistical support.

Background

The risk of dentists transmitting BBV infections to patients is exceptionally low and will continue to fall as more effective methods of prevention and treatment are identified**.** To date, there are no documented cases of transmission of any BBV from Canadian dentists to patients, and also no documented transmissions of either HIV or HCV from Canadian physicians to patients. There is only one report of a Canadian physician (an orthopedic surgeon) implicated in transmitting HBV to two patients; these infections occurred prior to the implementation of Standard Precautions (formerly known as universal precautions) and before the availability of modern antiviral therapy for HBV [2]. There is also a

well-documented case of a Canadian electroencephalogram technologist who transmitted HBV to multiple patients [3].

Paradoxically, despite evidence that the risk of transmission of BBVs by HCWs is low and falling, a growing number of Canadian provincial dental, medical and nursing licensing bodies have started to collect information about the HBV, HIV and HCV status of dentists, physicians and nurses at the time of initial licensure and/or at the time of license renewal. These licensing changes have occurred despite the expert opinion of the United States Centers for Disease Control and Prevention (CDC) that "infected HCWs who adhere to universal precautions and who do not perform exposure-prone procedures (EPPs) pose no risk for transmitting HIV or HBV to patients" [4]. EPPs are broadly defined as those in which access for surgery is difficult, where needlestick injuries (NSIs) are likely to occur, typically in closed or unvisualized operating spaces. Traditionally, many routine dental procedures were considered EPPs. However, in 2012, the CDC, in consultation with multiple stakeholders, reclassified the majority of dental procedures as low or no risk for percutaneous injury (Category II procedures), reserving only major oral or maxillofacial surgery as known or likely to pose an increased risk of percutaneous injury to dentists and placed in Category I (5). The 2012 CDC document describes Category I procedures as "the simultaneous presence of a health care provider's fingers and a needle in a poorly visualized or highly confined anatomic site" (5), yet specifically excludes routine dental procedures from Category I, even though it is common practice for dentists to inject local anesthesia with a needle adjacent to their finger inside the patient's mouth.

Many changes have contributed to a deceased incidence of the transmission of BBVs in the health care setting. The implementation of Standard Precautions substantially reduced the risk of transmission of BBVs both to and from HCWs by reducing exposures to patient blood and body fluids [6, 7, 8]. Also, a majority of HCWs, as well as a growing number of patients, have now received hepatitis B vaccine [9,

10]. Likely as a result of these two factors, between 1976 and 1993, the annual incidence of HBV infection decreased from 3.0% to 0.1% among hemodialysis patients and from 2.6% to 0.02% among hemodialysis staff in the United States [11]. Similarly, there has been an 85% reduction in cases of symptomatic acute hepatitis B in the United States from the early 1990s to 2009 [5]. Additionally, there have been significant advances in antiviral therapy for the three BBVs. Indeed, the majority of HBV and HIV infected patients receiving modern antiviral therapy have plasma viral loads (pVL) below the limit of detection in highly sensitive nucleic acid amplification tests, such as polymerase chain reaction (PCR). HCV infection can be cured in approximately 80% of patients with HCV genotypes 2 and 3 infection treated with pegylated interferon alfa plus ribavirin [12], and in about 75% of patients with HCV genotype 1 infection with the addition of HCV NS3/NS4A protease inhibitors [13], and cure rates may be even higher in the future with combination therapy with multiple directly acting antiviral drugs. Finally, we have entered an era with an increased focus on patient safety. There is an acknowledged need to reduce risks to patients. However, as discussed below, some of the measures recently undertaken by some licensing bodies with respect to BBV-infected HCWs appear to contravene the just culture component of the patient safety movement and may result in increased patient risk [14].

HCWs can acquire BBV infections as a result of a parenteral exposure to an infected patient's blood. The estimated risk per needlestick injury (NSI) from an infected, untreated source patient to a susceptible recipient is 30% for HBV [4], 1.8% for HCV [15] and 0.3% for HIV [16]. Studies conducted prior to the availability of HBV vaccine clearly demonstrated that the prevalence of antibodies to HBV was higher in dentists and physicians than the general population [17, 18], and that the prevalence of serologic markers of HBV infection in dentists and physicians increased with the number of years in practice, as well as being higher in specialties with more exposure to patient blood [17, 18, 19]. In contrast, the prevalence of HCV antibody is not higher among dentists than the general population in

almost all studies [18, 20, 21, 22, 23], likely reflecting the considerable lower infectivity of HCV relative to HBV, possibly supplemented by the efficacy of Standard Precautions. Nevertheless, exposure to BBVs is an occupational hazard that HCWs must face, and in addition to HBV, there are well-documented cases of HCWs acquiring HCV [24] or HIV [25] infection from occupational parenteral exposures. However, it is considered unethical for HCWs to refuse to provide medically required care simply because the patient has a BBV [26]. While HCWs should practice Standard Precautions [27] and receive hepatitis B vaccine to protect them from HBV [4, 15], it is recognized that some persons are HBV vaccine non-responders, and there are no vaccines for either HIV or HCV, nor is it likely that they will become available any time soon.

The risk of a non-immune patient acquiring HBV from an infected dentist or physician during an EPP is significant. There have been many documented cases in which HBV-infected dentists (including oral surgeons) or physicians (always surgeons or obstetricians-gynecologists) have transmitted HBV to patients [4]; most of these cases occurred prior to the practice of Standard Precautions. Recognition of the risk of transmission of infections from HCWs to patients led to the development of guidelines to identify those dentists and physicians at risk for transmitting HBV by ascertaining the degree of infectivity, best assessed by pVL, and the specific procedures performed by that practitioner [15, 28-31]. Thus, HBV-infected dentists and physicians with high plasma levels of HBV DNA are appropriately advised to refrain from performing EPPs [4, 28-31].

The risk of a patient acquiring a HCV or HIV infection from an infected HCW is very low. The vast majority of patients receive care from HCV-infected HCWs without acquiring HCV infection [31, 32, 33, 34], although there have been a few cases of documented transmission of HCV from physicians to patients [31, 35, 36]. There have been no documented cases of HCV transmission from a dentist to a patient, but there is a risk that such transmission could occur.

To date, 31 years into the HIV/AIDS epidemic, there have been only 4 HCWs documented to transmit HIV to patients. One of the implicated HCWs was a dentist, who transmitted HIV to six patients [37]. This dentist was unaware of his diagnosis and was not receiving antiretroviral therapy. Two were physicians, both of whom were surgeons who were unaware of their HIV infection and were not receiving antiretroviral therapy [38, 39]. The fourth implicated HCW was a HIV-HCV co-infected nurse who transmitted HIV but not HCV to a patient [40]. This nurse did not perform EPPs, and the circumstances are suspicious for unprofessional activity. In contrast, there have been over 22,000 patients who have received care from HIV-infected dentists or physicians with no documented HIV transmission [41].

Blood Exposures In Dental Practice

Frequency and Mechanisms

Dentists can acquire BBV infections through exposure to patient blood during procedures. Dentists can transmit BBV infection when patients are exposed to the blood of the dentist; these exposures are more common than many dentists appreciate. In 1986, US dentists reported an average of one percutaneous injury per month [42]. In 1991, the main causes of percutaneous injury in dentistry were burs (31%), syringe needles (30%), sharp instruments including laboratory knives (21%), and orthodontic wire (6%) [43]. Fortunately, the frequency of percutaneous injury by dentists appears to have declined to about 0.28 injuries per month, or 3.35 per year [44], likely as a result of Standard Precautions (see later). However, it is likely that many percutaneous injuries are unrecognized, since surgeons perceive only 30-66% of glove perforations [45, 46]. Patients are exposed to the dentist's or surgeon's blood when the sharp object that caused the injury re-contacts the patient; one study reported that this happened in 32% of sharp object injuries to surgeons [47].

Exposure Prone Procedures (EPPs)

In 1998, the CDC defined an EPP as follows: 1) Digital palpation of a needle tip in a body cavity (a hollow space within the body or one of its organs) or the simultaneous presence of the HCW's fingers and a needle or other sharp instrument or object in a blind or highly confined anatomic site (e.g., during major abdominal, cardiothoracic, vaginal and/or orthopaedic operations), or 2) Repair of major traumatic injuries, or 3) Manipulation, cutting or removal of any oral or perioral tissue, including tooth structures, during which blood from a HCW has the potential to expose the patient's open tissue to a blood-borne pathogen. Hence, according to the 1998 definition of an EPP, nearly all dentists and dental specialists perform EPPs. However, as noted above, in 2012, the CDC concluded that most dentists do not perform EPPs according to the updated definition [5]. In contrast, oral surgeons do perform EPPs according to the updated definition.

Risk Reduction Measures

Standard Precautions are the most important measure to ensure that HCWs are not exposed to a patient's blood (and conversely, to also ensure that a patient is not exposed to a HCW's blood) [27]. In a study by Panlilio et al., 81 (74%) of the 110 blood contacts among surgeons were potentially preventable by additional barrier precautions, such as face shields and fluid-resistant gowns [48]. Immunization is a highly effective method to prevent the transmission of HBV [4]. All HCWs who perform EPPs should be immunized for HBV and tested to confirm the presence of an effective antibody response [4].

Double-gloving could also be used routinely by BBV-infected dentists, and ideally by all dentists, since the BBV infection status of most patients is unknown. Double-gloving reduces total glove perforation rates by 50% and reduces the exposure to blood by up to six-fold [49, 50, 51]. Because glove perforations are more likely to occur in cases lasting more than one hour [47], changing gloves during long cases is a prudent practice. One concern about implementation of preventive measures in dental practice could be the cost, which is borne by the practitioner, in contrast to hospitals where it is borne

by the taxpayers. In a survey of general dentists in Ontario conducted in 1994, 31% reported that necessary infection control procedures are a financial burden to their practice [52].

As discussed above, handling tissues with fingers is associated with higher rates of glove perforations [47]. While different surgical techniques have not been evaluated in a prospective fashion, the available data strongly suggest that handling tissues and sharp objects with instruments only is likely another effective method of reducing the risks of NSIs.

When sharp object injuries occur, it should be mandatory to report the injury to an occupational health and safety program and seek appropriate medical follow-up and treatment, if necessary. Self-reporting of blood exposures is a critical step in preventing disease transmission to dentists (and subsequent transmission to patients). Postexposure prophylaxis for HBV (in those who are both HBsAg and anti-HBs negative) with hepatitis B immune globulin plus HBV vaccine is safe and effective. Most acute HCV infections can be cured with treatment started within 12 weeks of infection [12] and most HIV infections can be prevented with early postexposure prophylactic treatment [53]. Unfortunately, only a small fraction of sharp object injuries are currently being reported [54]. The reasons for the low rate of reporting of parenteral exposures have not been well investigated. Knowledge of the benefits of early detection of BBV infection ought to promote reporting. On the other hand, concern about a punitive response to the identification of BBV-infected dentists and surgeons is a potential explanation for underreporting.

Human Immunodeficiency Virus

Occupational Transmission in the Absence of Antiretroviral Therapy

The HIV epidemic was first described in June 1981 [55]. The causative virus was initially characterized in 1983 [56], but serologic testing was not widely available until 1985. Nevertheless, the first documented case of patient to HCW transmission of HIV from a NSI was published in 1984 [57]. Subsequent studies prior to the era of modern antiretroviral therapy (ART) found that the risk of HIV transmission following a NSI from an infected person is about 0.3% per exposure [16]. A case-control study conducted from 1987 to 1994 identified 4 factors associated with an increased risk of HIV transmission following percutaneous exposure: a deep injury, visible blood on the device, a procedure involving a needle in an artery or vein, and death of the source patient within two months following the parenteral exposure [58]. Of note, in the same study, the use of post exposure prophylaxis with zidovudine alone was associated with a statistically significant 81% reduction in transmission, underscoring the need for prompt reporting of occupational NSIs.

As of September 1997, 94 documented and 170 possible cases of occupational patient to HCW transmissions of HIV infection had occurred worldwide [59]. That number has undoubtedly increased in the intervening 15 years.

It was not until 1990 that the first cases of occupational transmission of HIV from an infected HCW to patients were reported from a dentist in Florida [60]. Subsequent investigation revealed that the same dentist infected six patients [37]. The circumstances that led to multiple infections in that practice are still poorly understood. The most likely explanation is a combination of a very high pVL in the dentist plus egregious disregard to infection control and prevention practices. In the early 1990s, the practices of many HIV-infected physicians and a few dentists were investigated for possible occupational transmission of HIV infection [61-70]. As of January 1, 1995, over 22,000 patients treated by 64 HIV-infected HCWs had been evaluated and no occupationally transmitted cases of HIV infection were found outside the single dental practice noted above [41].

It was not until 1999 that first case of physician-to-patient transmission of HIV infection was reported [38]. The source of infection was an orthopedic surgeon in France and the surgery associated with HIV transmission lasted 10 hours. The surgeon was unaware that he was HIV-infected until after he retired from performing surgery. No other cases of occupationally transmitted HIV infection were found in this surgeon's practice after another 982 patients were evaluated [38]. Seven years later in 2006, the second case of physician-to-patient transmission of HIV infection was described following caesarean section by a Spanish obstetrician who had sustained a NSI during the surgery [39]. The obstetrician was also unaware that he was HIV-infected at the time of surgery.

The only other case of HCW to patient transmission of HIV infection occurred in France where there was a close genetic match of the patient's HIV isolate and one of the patient's nurses [40] who had unrecognized advanced HIV infection with HCV co-infection. The nurse had contact with the patient on two night shifts only, but the published report does not describe any EPPs performed by the nurse nor does it exclude non-occupational routes of transmission. The fact that the nurse was co-infected with HCV raises the distinct possibility that she abused intravenous drugs, since injection drug use is the leading mode of acquisition of HCV in developed countries [71]. Intravenous drug abusing HCWs have been documented to negligently transmit BBVs to patients by "sharing" the patients' intravenous narcotic medication [72-77]; however, according to the report, the nurse denied a history of injection drug use [78].

Shortly after the report of the occupational transmission of HIV from the Florida dentist to patients, Bell and colleagues described a model to estimate the probability of transmission of HIV from an infected surgeon to patients [79]. Risk was estimated as the product of three probabilities: (i) that the surgeon will sustain a percutaneous injury during an invasive procedure (probability 2.5%), (ii) that the sharp object causing the injury and now contaminated with the surgeon's blood will contact the patient's

wound (probability 32%); and (iii) that infection would be transmitted to the patient after such an exposure (probability 0.3%). It should be noted that the 0.3% estimated probability was derived from parenteral exposures from HIV-infected persons not receiving ART. These three individual probabilities (2.5%, 32% and 0.3%, respectively) would give a total estimated probability of occupational transmission of 0.0024%, or 1 in 42,000 procedures. However, since the use of double surgical gloves is associated with up to a 10-fold reduction in the amount of blood transferred [80], Bell et al. noted that the risk might be as low as 0.00024% or 1 in 420,000 procedures.

HIV Viral Load Testing and Combination Antiretroviral Therapy

In 1996, it became standard practice to quantify HIV RNA in the plasma of HIV-infected patients, commonly called pVL, because of its ability to predict a more rapid clinical progression to AIDS [81]. In patients not receiving ART, pVL is the chief determinant of infectivity for sexual transmission [82] and for mother-to-child transmission [82-86]. It is highly probable that pVL is also the major determinant of occupational transmission, but the studies evaluating the risks for occupational HIV transmission were undertaken prior to the availability of pVL testing.

The year 1996 also heralded the modern era of combination ART. PVL testing demonstrated that single and even double therapy with two nucleoside HIV reverse transcriptase inhibitors had only a modest effect on reducing pVL, and almost never reduced it to below the lower limit of detection (at the time 400-500 RNA copies/mL). However, triple therapy with a combination of two nucleoside reverse transcriptase inhibitors plus an HIV protease inhibitor could suppress the pVL to undetectable in about 70% of patients, resulting in the introduction of the term “highly active antiretroviral therapy” (HAART), ergo - an admission that previous ART was *not* very active [87]. The introduction of HAART resulted in dramatic reductions in HIV-related mortality and morbidity [88, 89]. HIV infection has now become a

chronic controllable, yet incurable disease [90], considered by many to be not unlike diabetes mellitus, Crohn's disease, and rheumatoid arthritis, just to name three chronic medical illnesses. As of 2012, 24 distinct antiretroviral drugs are approved in Canada, several of which are available in fixed-dose combinations to reduce pill burden and enhance patient adherence. Additional investigational antiretroviral drugs are under clinical development. Furthermore, antiretroviral resistance testing is readily available to assist in the selection of appropriate antiretroviral regimens. It is now possible to suppress the pVL of nearly all HIV-infected patients to below the lower limit of detection of current tests (20-50 RNA copies/mL).

Role of pVL in Mother-to-Child Transmission of HIV

The obstetrical literature provides compelling evidence that ART markedly reduces infectivity. First, zidovudine monotherapy reduced the risk of mother-to-child transmission (MTCT) of HIV from 25.5% to 8.3% [91] despite the fact that zidovudine monotherapy decreases maternal pVL by less than 1 $\log_{10}$ [84]. The use of combination ART in pregnant HIV-infected women has further decreased the risk of MTCT to less than 1% [92,93] and in women with pVL below 50 copies/mL at delivery, the risk is about 0.4% [94]. Nevertheless, a small number of cases of MTCT of HIV have been documented despite low maternal pVL [95, 96]. These cases of MTCT can be explained by two factors; (i) while maternal pVL is the dominant determinant of MTCT, it is not the only one [97]; and (ii) some cases of MTCT occur *in utero* prior to the pregnant woman initiating ART. A recent analysis of cases of MTCT despite maternal pVL below 500 copies/mL at the time of delivery found that predictors of MTCT were lack of receipt of ART at conception, and viremia at weeks 14, 28 and 32 of gestation [96]. Assuming a background rate of MTCT in the absence of ART of 25.5% [91] and noting that the rate of MTCT observed with maximal virologic suppression (pVL < 50 copies/mL) in the ANRS French perinatal cohort was 0.4% [87], ART with a suppressed pVL results in a 64-fold reduction in transmission.

Role of pVL in Sexual Transmission of HIV

The risk of sexual transmission of HIV depends on the specific sexual activity. The per episode risk of acquiring HIV infection from sex with an infected partner is estimated at 0.5% for receptive anal intercourse, 0.1% for receptive vaginal intercourse, 0.65% for insertive anal intercourse and 0.05% for insertive vaginal intercourse [16, 98, 99]. In untreated HIV-infected subjects, pVL is the major predictor of infectivity via heterosexual intercourse [82]. Quinn et al. found no instances of HIV transmission among the 51 serodiscordant heterosexual couples in which the HIV-infected partner had a pVL below 1500 copies/mL [82]. A systematic review of 5021 heterosexual couples and 461 HIV transmissions found no transmissions from an infected partner with a pVL below 400 copies/mL receiving ART [100]. However, sexual transmission from a patient with an undetectable pVL (<50 copies/mL) on ART has now been reported in a gay male couple [101] and in a heterosexual couple [102]. These rare cases of sexual transmission despite aviremia may be explained by the observation that some patients can have detectable HIV RNA in semen when it is undetectable in plasma [103].

Risk of Occupational HIV Infection in the Era of Combination Antiretroviral Therapy

To date, there has not been a single documented case of occupational transmission of HIV from an infected HCW receiving ART and there are no published risk estimates. A reasonable estimate of the risk of occupational transmission of HIV from an HIV-infected surgeon who is receiving ART and has an undetectable pVL may be calculated by taking the risk of transmission from an HIV-infected surgeon not receiving ART (calculated by Bell et al. [79] as 1 in 42,000 to 1 in 420,000 procedures) and dividing by the 64-fold reduction in HIV transmission observed by the ANRS French perinatal cohort in pregnant HIV-infected women receiving ART who had pVL below 50 copies/mL at the time of delivery [94]. This calculation results in an estimated risk of 1 in 2,688,000 to 1 in 26,880,000 procedures, a risk slightly

lower than the current risk of 1 in 2 million of acquiring HIV infection from a single unit of blood, despite screening for both HIV antibody and HIV RNA [104], and slightly lower than the risk of mortality from general anesthesia of about 1.1 per million [105]. The above calculation may be an underestimate of the protection provided by suppressive ART in the occupational setting, since MTCT is affected not only by HIV maternal pVL at the time of delivery, but also by maternal pVL at conception, weeks 14, 28 and 32 [96], and other factors, such as the use of invasive fetal monitoring [97]. Similarly, the two documented cases of sexual transmission of HIV from persons on ART with a suppressed pVL are explainable by detectable HIV RNA in semen. Unlike sexual transmission or MTCT, only the concentration of virus in blood and the volume of blood exposed at the time of the parenteral exposure are relevant for one-time parenteral exposures. Thus, it is likely that the pVL of an infected HCW will be a stronger predictor of infectivity for parenteral exposure than it is for either sexual transmission or MTCT.

The greatest risk of HCW-to-patient transmission of HIV (and this risk is still extremely small) is from HCWs who are unaware that they are HIV-infected. These HCWs would obviously not be taking ART and would be unlikely to be routinely double-gloving. Indeed, the only three documented cases of dentist or physician-to-patient transmission of HIV occurred in exactly this setting [37, 38, 39]. It is estimated that 21% of all cases of HIV infection in adults and adolescents in the United States are undiagnosed [106]. If the same proportion of dentists and surgeons with HIV infection were undiagnosed (about 1 in 5), and if the 4 in 5 with known HIV infection were receiving ART with undetectable pVL and were permitted to perform EPPs using double-gloves, and finally assuming that there is a 64-fold reduction in HIV transmission in the latter group, it is estimated that 94% of all HIV transmissions would occur from the 20% of HIV-infected dentists and surgeons unaware of their HIV infection. Expressed differently, one

would expect 16 transmissions from dentists and surgeons unaware of their HIV infection for every case from HIV-infected dentists and surgeons receiving ART with an undetectable pVL.

Hepatitis B Virus

Epidemiology

HBV is an important human pathogen with an estimated 350 million chronic carriers worldwide. Most infections worldwide are transmitted from mother-to-child, usually during parturition or in early childhood. An estimated 500,000 persons die annually from the complications of chronic HBV infection, such as primary liver cancer (hepatocellular carcinoma), esophageal variceal bleeding or liver failure, with the greatest burden of disease in Asia. Acute HBV infection in immune competent adults is usually cleared spontaneously, but up to 5% can develop chronic HBV infection and approximately 1% can develop fulminant liver failure. Although Canada is considered a low-endemic area for HBV, there are certain populations and geographic regions in which the prevalence of HBV is significantly higher, especially immigrants to Canada from HBV endemic areas. Currently there are an estimated 350,000 chronic HBV carriers in Canada [107]. Since 1982, a safe and effective HBV vaccine has been available and widely used. The initial vaccine formulation produced from human plasma containing high titres of hepatitis B surface antigen (HBsAg), and whilst very effective, has since been replaced by a "synthetic" recombinant HBsAg vaccine which is equally safe and effective but more widely accepted than the human plasma derived formulation. All Canadian provinces have adopted a policy of publicly funded HBV vaccination either in infancy or pre-adolescence. Most (>95%) immunocompetent children and adults will develop protective antibodies to HBsAg (anti-HBs) and a robust, long-lasting memory B cell response to the HBV, despite waning of anti-HBs titres over time (15-20 years), hence revaccination or booster shots are not routinely recommended [108]. Vaccine non-response can occur, particularly in older, heavier and immunodeficient persons. All dental and medical schools in Canada require

immunization against HBV for students before entry, and overall, a growing proportion of patients and HCWs [8, 9] will have received HBV vaccine. However, there are still cases of HBV-infected HCWs that were infected vertically (mother-to-child) or via early horizontal childhood transmission prior to the era of screening pregnant women for HBV in Canada. In addition, it is recognized that internationally trained HCWs moving from HBV endemic areas to low prevalence countries such as Canada and the United States may represent another potential group of infected HCWs [109].

Hepatitis B Diagnosis and Monitoring

Over the last two decades there has been exponential progress in the clinical management and concomitant understanding of the natural history of chronic hepatitis B, both of which have been facilitated by the availability of sensitive diagnostic assays and potent anti-HBV antiviral therapies [110]. The definition of chronic HBV infection is persistence of serum HBsAg for greater than 6 months. The detection of hepatitis B e antigen (HBeAg) was historically used as a surrogate marker of high level HBV viremia [111], and loss of HBeAg with anti-HBe antibodies, an indicator of quiescent, "nonreplicative" or inactive disease. However it is now well-recognized that in some patients, seroconversion to anti-HBe seropositive status, can occur along with ongoing moderate levels of HBV replication and active liver disease due to a mutation in the HBV core gene that abolishes production of HBeAg (i.e., precore or basal core promoter mutant HBV) [112]. The presence of antibodies to hepatitis B surface antigen (anti-HBs) is indicative of either prior vaccination against HBV or natural immunity from prior infection (which is frequently asymptomatic). Prior HBV infection is typically confirmed by the concomitant presence of antibodies to hepatitis B core antigen (anti-HBc), which do not develop in response to HBV vaccine.

As noted above, the presence of HBeAg had been used as a surrogate marker of HBV viremia. First generation molecular testing for HBV DNA relied on a slot-blot HBV DNA hybridization assay with a

lower limit of detection (i.e., sensitivity) of 5 pg/mL or approximately 1,000,000 virus copies per mL. In the early 2000s, the advent of sensitive PCR-based assays for detection of HBV DNA has significantly lowered the detection limit of HBV DNA. Due to wide variation and poorly standardized HBV DNA assays in use, the World Health Organization has adopted the convention of international units per mL (IU/mL), which is estimated to equal 5.2 virus copies per mL. The current "gold standard" for detection of HBV DNA is a sensitive real-time PCR-based assay that has a lower limit of detection of 20 IU/mL– at least 5 $\log_{10}$ greater sensitivity than the first generation slot-blot hybridization assay. Hence, an important end-point of current anti-HBV therapy, along with liver enzyme normalization and HBeAg seroconversion (in patients initially HBeAg positive), is undetectable plasma HBV DNA according to a highly sensitive PCR assay, equal to < 20 IU/mL [107].

HBV Therapy

The goal of anti-HBV therapy is durable virological suppression and avoidance of antiviral resistance to prevent the development of progressive liver disease [113, 114]. Approved anti-HBV therapies include several formulations of interferon given by subcutaneous injection. However, interferon is often poorly tolerated due to its significant side effect profile [107, 113, 114]. In 1998, lamivudine was the first oral nucleoside analogue approved for treatment of HBV, although it had been used as an anti-HIV agent for several years previously. Lamivudine is well tolerated, has an excellent safety profile and moderate antiviral potency; however prolonged therapy results in high rates of antiviral resistance development – up to 70% after 3 years, so that it is no longer a preferred first-line agent [114]. Over the past 5 years, an increasing number of newer nucleoside/nucleotide analogues have become available for management of HBV. Entecavir, approved for use in Canada in June 2006, was the first HBV antiviral that could reliably suppress pVL to below the limit of detection in sensitive PCR assays with minimal side effects and minimal risk for treatment failure due to resistance. Tenofovir, approved in Canada in

September 2008, was the second very potent antiviral, but the first that could also reliably control HBV variants that were resistant to lamivudine [107, 114, 115, 116].

Occupational Transmission of HBV from Infected Health Care Workers to Patients

As noted in the introduction, since the availability of serologic testing for HBV infection in the early 1970s, there have been a number of reported cases of HBV-infected HCWs transmitting HBV to their patients during invasive procedures. Figure 1 provides a summary of cases. In 1991, the CDC reviewed 20 clusters of over 300 patients who were infected with HBV in association with treatment by an HBV-infected HCW [4]. In 12 of 20 of these "clusters", the implicated HCW did not practice Standard Precautions, such as routinely wearing gloves; several had open skin lesions that may have facilitated transmission. HBeAg status was assessed in 17 of the 20 HCWs and all were positive. All of these transmissions occurred before the advent of sensitive PCR-based HBV DNA assays. In 1991, the CDC recommended restricting HBeAg positive HCWs from performing EPPs [4].

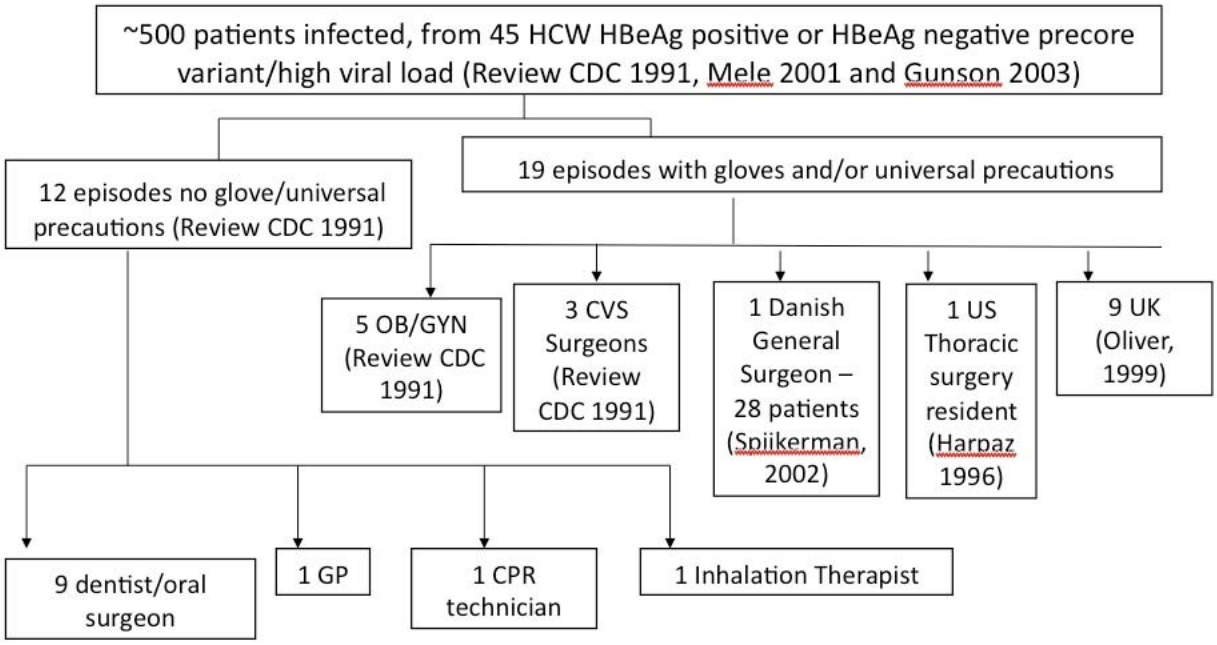
Since 1991, 11 episodes of HBV transmission to patients from infected surgeons have been reported, nine from the United Kingdom [117, 118, 119], one from the Netherlands [120], and one from the United States [121]. In several cases, the surgeons were HBeAg positive, but unaware of their diagnosis [118, 120, 121]. However, in 1997, the first reports of HBV transmission from HBeAg negative surgeons were published [122]. The four HBeAg negative surgeons implicated in transmission had plasma HBV DNA concentrations ranging from 250,000 to 10 million copies/mL (50,000 to 2 million IU/mL). By 2003, a total of 7 HBeAg negative HBV-infected surgeons had been implicated in HBV transmission to patients [29], including the 4 surgeons described above [122]. Plasma HBV DNA was quantified in 6 of the 7, and the lowest value was 40,000 copies/mL (~8000 IU/mL), with all others above 200,000 copies/mL (40,000

IU/mL). The lowest value of 40,000 copies/mL (~8000 IU/mL) was from a blood sample collected more than 3 months after transmission.

On the basis of these data, the European Consensus Group in 2003, prior to the availability of potent HBV antiviral therapy, proposed a pVL cut-off of <10,000 copies/mL (2000 IU/mL) for HBV-infected HCWs performing EPPs, as a balance between risk of HBV transmission and loss of HCWs [29]. The Netherlands has chosen to permit HBV-infected surgeons to perform EPPs as long as their pVL is below 100,000 copies/mL (~20,000 IU/mL), regardless of their HBeAg status [29]. From 2000 to 2008, the Dutch Committee for the Prevention of Iatrogenic Hepatitis B evaluated 99 HBV-infected HCWs and noted that of 36 HBV-infected Dutch physicians performing EPPs, 11 (31%) had pVL > 100,000 copies/mL (~20,000 IU/mL) without antiviral therapy and were required to stop performing EPPs [123]. Dutch authorities have attempted to keep HBV-infected surgeons in surgical practice by offering anti-HBV therapy to HBV-infected HCWs with pVL >100,000 copies/mL (~20,000 IU/mL) who perform EPPs [124]. When last evaluated in 2009, no cases of HCW-to-patient transmission of HBV have been recognized in Holland since this pVL cutoff of was implemented in the year 2000 [123].

In contrast, the United Kingdom (UK) has chosen to prohibit HBeAg positive physicians from performing EPPs regardless of pVL or whether they are receiving antiviral therapy, and to prohibit HBeAg negative physicians from performing EPPs if their pVL is >1000 copies/mL (200 IU/mL) [125]. If the Dutch used this pVL cutoff as used in the UK, then 32 of 36 (89%) of their HBV-infected HCWs performing EPPs would be restricted from performing EPPs [123]. In 2010, the Society for Healthcare Epidemiology of America (SHEA) recommended the same pVL cut-off of <10,000 copies/mL (2000 IU/mL) for HBV-infected HCWs performing EPPs as chosen by the European Consensus Group [31]. In 2012, the CDC recommended a pVL cut-off of 1000 IU/mL [5].

Figure 1: Summary of Reported Cases of HBV transmission from Infected Health Care Workers. Many cases of transmission occurred before the introduction of Standard Precautions and before the advent of sensitive diagnostic tests for HBV viral load and availability of suppressive antiviral therapy for HBV.



Hepatitis C

Epidemiology

The existence of HCV was inferred in the mid-1970s, when a parenterally transmitted form of non-A, non-B hepatitis was described [126]. In 1989, collaboration between scientists at the CDC and the Chiron

Corporation led to the “discovery” of HCV by molecular cloning [127]. HCV has an incubation period averaging 2 months. Most acute HCV infections are asymptomatic or result in anicteric disease [128]. Approximately 25% of cases of HCV infection are cleared spontaneously whereas about 75% become chronic [128]. Chronic HCV infection can lead to cirrhosis, liver failure and hepatocellular carcinoma [129]. Excess alcohol consumption [130] and HIV or HBV co-infection [131] increase the rate of progression of HCV liver disease. Hepatitis C is a global public health problem, with about 170 million people chronically infected [71]. Hepatitis C is the leading cause of chronic liver disease and hepatocellular carcinoma in North America and Europe, and is the leading indication for liver transplantation [129].

HCV Therapy

Current antiviral therapy for chronic hepatitis C depends on the HCV genotype. The combination of pegylated interferon alfa-2a or 2b administered subcutaneously once weekly plus ribavirin administered orally twice daily, is given for 24 weeks for HCV genotypes 2 or 3, and for 48 weeks for HCV genotypes 4, 5 and 6 [12]. For HCV genotype 1, the most prevalent genotype, telaprevir or boceprevir is added to pegylated interferon and ribavirin, with the treatment duration varying from 24 to 48 weeks, depending on the time to clearance of viremia and the presence of cirrhosis [13, 132]. The goal of therapy is a sustained virologic response (SVR), defined as HCV RNA negativity in serum or plasma 6 months following completion of therapy, although recent data indicate that HCV RNA negativity 12 weeks after completion of therapy, referred to as SVR12, has 99.7% accuracy in predicting SVR [133], and is now accepted by the United States Food and Drug Administration. SVR appears to be equivalent to virologic cure and is achieved in about 75% in genotype 1, 85% in genotype 2, 75% in genotype 3 and 65% in genotype 4. However, if antiviral therapy is administered to patients with acute hepatitis C, SVR rates are high (57 to 94%), and ribavirin is probably unnecessary [128]. The high SVR rate with acute HCV

infection underscores the need for prompt reporting to the occupational health program when HCWs sustain NSIs.

HCV Transmission

Over 90% of HCV infections are transmitted via a parenteral exposure. In developed countries, most cases of HCV infection are acquired from illicit injecting drug use [71], but in developing countries, many cases are acquired from inadequately sterilized reused needles and syringes used in health care [71]. Transmission through blood products has virtually disappeared in the developed world since blood banks began screening donated blood for both HCV antibody and HCV RNA [104]. Unfortunately, other (non blood transfusion) healthcare related transmissions of HCV continue to occur via breaches in infection control measures [134, 135, 136].

Heterosexual transmission of HCV can occur, but is rare [71, 137]. Male homosexual transmission via unprotected receptive anal intercourse is increasingly reported, mainly among those co-infected with HIV [138]. Mother-to-child transmission occurs in about 4-7% of pregnancies in HCV-infected women, with the higher rates noted in women co-infected with HIV [139].

Occupational Transmission of HCV from Patients to Healthcare Workers

The first evidence that HCV can be transmitted via a NSI was the recognition in 1980 that non-A, non-B hepatitis could be transmitted from a patient to a HCW [140]. In 1990, it was confirmed that HCV could be transmitted from a single NSI [24, 141].

The risk of HCV transmission following a NSI from an HCV-infected source is about 1.8% [142]. A source needle that had been placed in a patient's vein or artery carries about a 100-fold increased risk of HCV

transmission compared with needles not placed in a blood vessel [143]. A deep puncture and male sex of the injured HCW were also found to increase the risk of HCV transmission following occupational exposure [143]. Furthermore, the HCV viral load of the source patient also influences the risk of transmission. Specifically, the risk of HCV transmission was 11-fold greater from source patients with HCV RNA > 6 $\log_{10}$ copies/mL compared with those with HCV RNA < 4 $\log_{10}$ copies/mL [143].

Occupational Transmission of HCV from Healthcare Workers to Patients

Surgeons and Dentists

To date there have been 33 documented instances of HCV transmissions from 9 HCV-infected surgeons [32]. The per patient transmission probability from these 9 surgeons ranged from 0.0004% to 0.0225% (or one in 4,444 to one in 250,000 cases) [32]. However, this overestimates the risk of surgeon-to-patient transmission of HCV, since it only includes surgeons implicated in transmission. A look-back exercise of patients operated upon by an HCV-infected general surgeon in Germany found no cases of HCV transmission in 1192 patients [34]. To date, there has been no documented physician to patient transmission of HCV in Canada, and a look-back investigation of 231 patients who had undergone EPPs by an HCV-infected Canadian general surgeon failed to demonstrate HCV transmission [32]. To date, there have been no documented cases of occupational transmission of HCV from dentists to patients.

Anesthesiologists

Regrettably, there are three well documented cases in which narcotic addicted anesthesiologists caused multiple cases of HCV infection in patients by self-injecting the patients' narcotic and then using the same syringe on the patient [72, 73, 76, 77]. Similar cases have been described in a nurse anesthetist [74] and a surgical technician [75].

In 2000, Ross et al. reported a case in which an anesthesiology assistant acquired HCV infection from a patient and then transmitted the identical HCV strain to 5 patients [144]. In 2002, a single case of HCV transmission from an anesthesiologist to a patient was described [145]. No evidence of HCV transmission was found in 343 other patients treated by this anesthesiologist and who were tested. In 2005, Mawdsley et al. reported a single case of HCV transmission from an anesthetist to a patient [146]. It is impossible to determine if any of the above cases may also be attributable to illicit drug diversion. The fact that there have been no documented cases of transmission of HBV from anesthetists to patients, despite the fact that HBV carries a substantially higher risk per NSI, increases the suspicion that the above cases were also related to drug diversion [31].

RECOMMENDATIONS

General Principles

Recommendation 1: The policies governing dentist screening for BBV and the management of BBV-infected dentists should be evidence-based. Mandatory testing of dentists and/or practice restrictions for BBV-infected dentists are costly and an intrusion of privacy. There should be evidence of benefit in order to justify these costs and intrusion of privacy.

Recommendation 2: Provincial/territorial dental regulating authorities (Colleges) should develop policies that encourage a safe working environment and maximize the use of measures to prevent BBV transmission. Some of these opportunities include but are not limited to: 1) mandating the use of Standard Precautions; 2) reporting occupational blood exposures to and from patients; and 3) identifying additional financial resources to support BBV-infected dentists who face practice

restrictions. Colleges are encouraged to explore measures that will encourage reporting of occupational exposures and contribute to a culture of patient and dentist safety.

Recommendation 3: When dentist-to-patient blood exposure occurs during a procedure, the involved dentist and patient should both be tested for BBVs. If a patient is exposed to blood from a BBV-infected dentist, the patient should be told about the exposure as well as the specific BBV, and the estimated risk of transmission. Appropriate follow-up of the patient and the dentist should be provided. The patient should be offered baseline and follow-up testing, and where appropriate, the HCW or patient should be offered postexposure prophylaxis at no cost.

Screening of Dentists for BBV

Dentists Who Do Not Perform EPPs

Recommendation 4: The available evidence does not support mandatory testing for BBVs for dentists who do not perform EPPs. To date, BBV infections transmitted by HCWs have only occurred during EPPs. Thus, there are no data to justify either the cost or the intrusion of privacy associated with mandatory testing of dentists who do not perform EPP. However, voluntary anti-HBs testing is strongly encouraged to determine each dentist's HBV immune status in light of the known effectiveness of HBV vaccination. Dentists not performing EPP, but at increased risk for one or more BBV for non-work related reasons are also encouraged to undergo testing, for their personal health benefit.

Dentists Who Perform EPPs

HBV Testing

Recommendation 5: Current data support mandatory testing of dentists who perform EPPs for immunity to HBV (presence of anti-HBs). This recommendation is based on the significant number of documented dentist-to-patient transmissions of HBV, the widespread use of HBV vaccine among HCWs and the recognition that most dentists will test anti-HBs positive and only require testing once. Those testing anti-HBs positive are considered immune and no further testing is required. Those testing anti-HBs negative should be tested for HBV infection (HBsAg and anti-HBc), and if positive for HBsAg, should be managed as below. Those testing negative for all three tests, HBsAg, anti-HBc and anti-HBs, i.e. vaccine non-responders, and those who never received vaccine, should receive another series of HBV vaccine and be retested for anti-HBs following immunization. In those in whom HBsAg, anti-HBs and anti-HBc remain negative after repeat immunization, annual testing for HBsAg is recommended. Those who test positive for anti-HBc but negative for HBsAg have likely been infected with HBV in the past but the infection has resolved. As such, further vaccination is not required.

HIV Testing

Recommendation 6: Current data do not support mandatory HIV testing of dentists who perform EPPs. This recommendation is based on the negligible risk of dentist-to-patient transmission (one implicated dentist worldwide in 31 years; two from surgeons, one of which occurred after a recognized NSI, which would result in testing and reporting under recommendation 3), and, taking into account observed risk, the lack of any evidence of not only cost-effectiveness, but also effectiveness. Even prior to the HAART era, screening surgeons for HIV infection was found not to be cost-effective [147]. Specifically, annual screening was estimated to cost 1.1 million 1995 U.S. dollars per life-year saved [147]. The cost per life-year saved in the HAART era would be markedly higher. Furthermore, if HIV

testing of dentists were to be implemented, there are no data on which to base a recommendation for the frequency of such testing.

HCV Testing

Recommendation 7: Current data do not support mandatory HCV testing of dentists who perform EPPs. The infectivity of HCV is intermediate between that of HBV and HIV, and the risk estimates for HCW-to-patient transmission of HCV are wide. It is recognized that there have been a few documented cases of HCW-to-patient transmission of HCV. However, 22 years after the availability of HCV testing, there have been no documented cases of occupational transmission of HCV from any dental health care worker anywhere in the world. Furthermore, if screening of dentists for HCV infection were implemented, there are no data to guide the frequency of repeat HCV testing of the ~99% of dentists who test negative. The rarity of dentist-to-patient transmission of HCV in the era of Standard Precautions does not justify mandatory screening of dentists for HCV.

Approach to the Dentist with BBV Infection

General Principles

The overall approach to a BBV-infected dentist should not differ from the approach to dentists with any other chronic illness. The dentist should receive appropriate medical care and should be permitted to continue to practice dentistry as long as his/her health permits and as long as the risk to the patient is not disproportionate. The BBV-infected dentist should have a personal physician qualified in the

management of the particular BBV infection that he/she has. As with any patient, the BBV-infected dentist is entitled to confidentiality.

BBV-Infected Dentists Who Do Not Perform EPPs

Recommendation 8: For BBV-infected dentists who do not perform EPPs, there are no grounds to restrict their practice on account of the BBV infection, provided that they adhere to Standard Precautions. The criteria for initiating antiviral therapy in BBV-infected HCWs who do not perform EPPs should not differ from BBV-infected patients who are not HCWs.

BBV-Infected Dentists Who Perform EPPs

Dentists who perform EPPs and who know that they are infected with a BBV should report that information to their regulatory authority as soon as possible. The approach to BBV-infected dentists who perform EPPs is based on assessing the risk of transmission and reducing it as much as possible. Since the risk of transmission of BBVs is related to the amount of virus to which a patient is exposed, the pVL of the infected HCW is critical in assessing infectivity. When the pVL of the BBV-infected dentist is high, prohibiting EPPs in susceptible patients is appropriate. In individual cases, it is reasonable to consider antiviral therapy in the BBV-infected dentist who performs EPPs, even if that dentist doesn't meet the conventional criteria for antiviral therapy, since antiviral therapy can reduce pVL to very low levels, allowing the dentist to continue practice. This approach is similar to treating HIV-infected pregnant women with ART even if they have high CD4 counts. In the latter case, ART is given to prevent transmission, rather than for direct maternal benefit.

As there are some differences with each of the three BBVs, the recommendations for each will be discussed separately.

HIV-Infected Dentists Who Perform EPPs

The risk of transmitting HIV during EPPs from HIV-infected surgeons NOT receiving ART is estimated at 1 in 42,000 to 1 in 420,000 procedures [79]. It is estimated that this risk can be reduced to 1 in 2.7 to 1 in 27 million procedures if the surgeon is receiving ART and has an undetectable pVL and wears double gloves. A policy which prohibits all HIV-infected dentists from performing EPPs possibly increases the risk to patients. Since only dentists known to be HIV-infected are subject to restrictions on their practice, there is a clear disincentive against voluntary testing of dentists who perform EPPs. Furthermore, a dentist who leads a lifestyle which places him/her at increased risk of contracting HIV-infection, might be even more inclined to avoid testing when a positive test means that his/her livelihood is at risk. Mandatory testing of dentists who perform EPPs would potentially overcome this problem, but we do not believe it to be an appropriate response, given the incredibly low risk.

A better approach, we believe, is one that achieves the dual benefits of protecting more patients from occupational HIV infection and allowing more HIV-infected dentists to remain in practice, and is congruent with the just culture of the patient safety movement. We encourage dentists to undergo voluntary HIV testing, especially if they are at increased risk by lifestyle or previous residence in an endemic country.

Recommendation 9: HIV-infected dentists who perform EPPs should be started on ART as soon as possible. HIV-infected dentists should not be able to perform EPPs until they are on ART and their pVL is undetectable. Once documented to have an undetectable pVL on ART, they should be permitted to perform EPPs using double gloves, as was recently permitted for an Israeli cardiothoracic surgeon [148], with the proviso that their personal physician provides regular (every 6 month) confirmation to the regulatory agency that his/her pVL is persistently suppressed. If dentists experience loss of income

during the time that they are not permitted to perform EPPs, efforts should be made to supplement the income loss, possibly through insurance, since any disincentive to identifying HIV-infected dentists puts patients at increased risk of HIV infection. In the event that public health officials choose to pursue a look-back study when an HIV-infected dentist is newly identified, and it is recognized that this is not routinely required [31], it is important that the identity of the infected dentist not be disclosed publicly, because of the need to respect his/her confidentiality [31, 149].

HBV-Infected Dentists Who Perform EPPs

The vast majority of transmissions of BBVs from HCW to patient have been with HBV. There are four probable explanations. The first, and likely most important, is that HBV is the most infectious of the three, on a per exposure basis, possibly because the pVL of untreated hepatitis B can be exceedingly high, a thousand to a million fold higher than either HIV or HCV. The risk per parenteral exposure is about 10-fold higher than HCV and about 100-fold higher than HIV. Second, there have been many more years to identify HBV outbreaks. Testing for HBV has been available since the early 1970s. In contrast, testing for HIV became available in 1985 and testing for HCV in late 1989. The third factor is that most of the HCW-to-patient transmissions occurred in a period of time when infection control practices were much more lax than the present era of Standard Precautions. For example, most dentists did not wear gloves in the 1970s. Fourth, the global prevalence of chronic HBV infection is about 350 million, in comparison with 170 million for HCV and 33 million for HIV.

There are several reasons why the incidence of HCW-to-patient transmission of HBV appears to be diminishing. First, Standard Precautions substantially reduce risk [5, 6, 7, 8]. Second, a growing proportion of both HCWs and patients have been immunized against HBV [9, 10]. Third, policies, such as those put forward by the CDC in 1991 [4] have led to restrictions of some HBV-infected HCWs (that

particular document recommended prohibiting HBeAg positive HCWs from performing EPPs). Fourth, many dental schools have been screening students for HBV infection after acceptance and not permitting HBeAg positive students to complete training, since it is considered impossible to train a dentist without teaching him/her to perform EPPs.

When the CDC guidelines were published in 1991 [4], sensitive PCR based assays for HBV DNA were not yet available, but it was known that the presence of HBeAg was predictive of increased infectivity [109]. Hence, the state of knowledge in 1991 supported the recommendation to prohibit HBeAg positive HCWs from performing EPPs.

It has become recognized that some untreated HBeAg negative patients have moderately high levels of viremia due to mutations in the precore gene [150]. Thus, it is not surprising that a few transmissions of HBV were subsequently documented from HBeAg negative surgeons with precore mutant virus [122]. Similarly, it is also known that a minority of HBeAg positive persons have low levels of plasma HBV DNA. Furthermore, HBeAg positive patients who start on antiviral therapy typically experience marked reductions in pVL (often below the limit of detection of sensitive PCR assays) before HBeAg is cleared. It is not unusual for such patients to have undetectable pVL by currently available assays on antiviral therapy but remain HBeAg positive for months to years. For example, of 354 HBeAg positive patients with a median baseline pVL of 9.63 $\log_{10}$ copies/mL who were treated with entecavir, 67% had HBV DNA below 300 copies/mL (<50 IU/mL) at week 28, but only 22% were HBeAg negative at that time [151]. Long term therapy safely and effectively suppresses pVL consistently in the majority and leads to resolution of HBV infection (loss of HBsAg) in a few. For these reasons, it no longer makes sense to assess HBV infectivity on the basis of HBeAg status alone. Plasma HBV DNA measured by a sensitive PCR assay appears to be the most appropriate measure of infectivity.

The evidence supports a pVL cut-off of 10,000 copies/mL (2000 IU/mL) chosen by the European Consensus Group in 2003 [29] and SHEA in 2010 [31], which is four times lower than the lowest pVL documented from an infected HCW who transmitted HBV to a patient, is an appropriate cut-off for the performance of EPPs. It is acknowledged that in 2012, the CDC selected a slightly lower cut-off of 1000 IU/mL [5].

Recommendation 10: HBV-infected dentists with pVL over 2000 IU/mL should not perform EPPs, except on patients who are HBV immune (anti-HBs positive) or HBV infected (HBsAg positive), until or unless their infectivity status changes- whether by natural immunity or from antiviral therapy. HBV-infected dentists with pVL consistently below 2000 IU/mL should be permitted to perform EPPs using double gloves and Standard Precautions, regardless of their HBeAg status, with the proviso that their personal physician provides regular (every 6 months) confirmation that his/her pVL is suppressed below this level to the regulatory agency as long as HBsAg remains positive on annual testing.

HCV-Infected Dentists Who Perform EPPs

The infectivity of HCV is intermediate between HBV and HIV. However, unlike HBV, where the range of pVL in untreated subjects is extremely wide (undetectable to 1 trillion IU/mL), there is much less variability in HCV, with a mean pVL of about 2 million IU/mL using the TaqMan PCR assay. A European study has confirmed what would be logically predicted, in that pVL predicts risk of transmission of HCV following parenteral exposures [143], as it does MTCT [152]. However, a transmission threshold has not been established. The UK prohibits all HCV viremic HCWs from performing EPPs [153], whereas SHEA recommends that those with pVL below 10,000 copies/mL may perform EPPs with double gloves and universal precautions [31]. In practice, few HCV-infected persons have pVLs below this cut-off. For

example, in a recent study of 3070 patients with HCV genotype 1 infection, only 18% had pVL below 600,000 IU/mL [154].

Recommendation 11: HCV RNA positive dentists should not perform EPPs. If HCV RNA done at least 12 weeks after completion of treatment is negative [133], they can resume EPPs.

Efforts should be make to supplement any income loss related to the time that the HCV-infected dentist was unable to practice, possibly from an insurance plan.

Conclusions

Dentists are at much greater risk of acquiring BBVs from patients than patients are of acquiring them from dentists. Nevertheless, there are multiple documented cases of HBV transmission from infected, but untreated dentists to patients during EPPs, most of which occurred prior to the use of Standard Precautions in infection prevention. One untreated HIV-infected dentist transmitted HIV to six patients, but there have been no other documented cases of dentist-to-patient transmission of HIV. There have been no documented cases of dentist-to-patient transmission of HCV, but there is a risk of such transmission, given that surgeons have rarely transmitted HCV to patients. Standard Precautions have substantially decreased the number of blood exposures throughout health care, protecting both patients and HCWs from BBVs. The risk of HBV infection has additionally been reduced by the increasing use of hepatitis B vaccine, especially among HCWs. Nucleic acid amplification tests can accurately quantify the amount of BBVs in plasma, and pVL has proven to be an accurate measure of infectivity. Current antiviral therapy can cure about 75% of HCV infections and can suppress the level of viremia in

HBV and HIV infection to below the level of detection in sensitive PCR assays in most patients, reducing transmission risks to minimal levels.

BBV-infected dentists who do not perform EPPs require no restriction of their practice, but are expected to practice Standard Precautions, as all HCWs should. BBV-infected dentists who perform EPPs should be assessed on a case-by case basis. Antiviral therapy may be indicated to allow performance of EPPs even if no other clinical indication for treatment exists. HBV-infected dentists with plasma HBV DNA consistently <2000 IU/mL, whether naturally (i.e. the immune control/inactive phase of chronic HBV infection) or because of antiviral therapy should be permitted to perform EPPs, regardless of their HBeAg status. HIV-infected dentists should not perform EPPs until they are receiving ART and have consistently undetectable pVL, at which time they should be permitted to perform EPPs. HCV viremic dentists should not perform EPPs, but they should be encouraged to undergo anti-HCV therapy and may resume EPPs if they become aviremic.

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APPENDIX 13

EOHU Eastern Ontario Health Unit | BSEO Bureau de santé de l'est de l'Ontario

Mr. Irwin Fefergrad, Registrar
Royal College of Dental Surgeons of Ontario

November 18, 2012

Dear Mr Fefergrad,

I write to thank you for your immediate actions to concerns I expressed to you on Friday afternoon, November 9, 2012 about possible infection control deficiencies at the dental office on [redacted].

I was very impressed at the rapidity and efficiency with which you responded as you started to work on this file over the weekend and proceeded with an onsite inspection the following Monday morning November 12, 2012. I understand that the issues our infection control nurse discovered were already being addressed and your inspectors were satisfied that there was no risk to the public. As I said to you, we would be happy to accompany your inspectors at your follow-up visit.

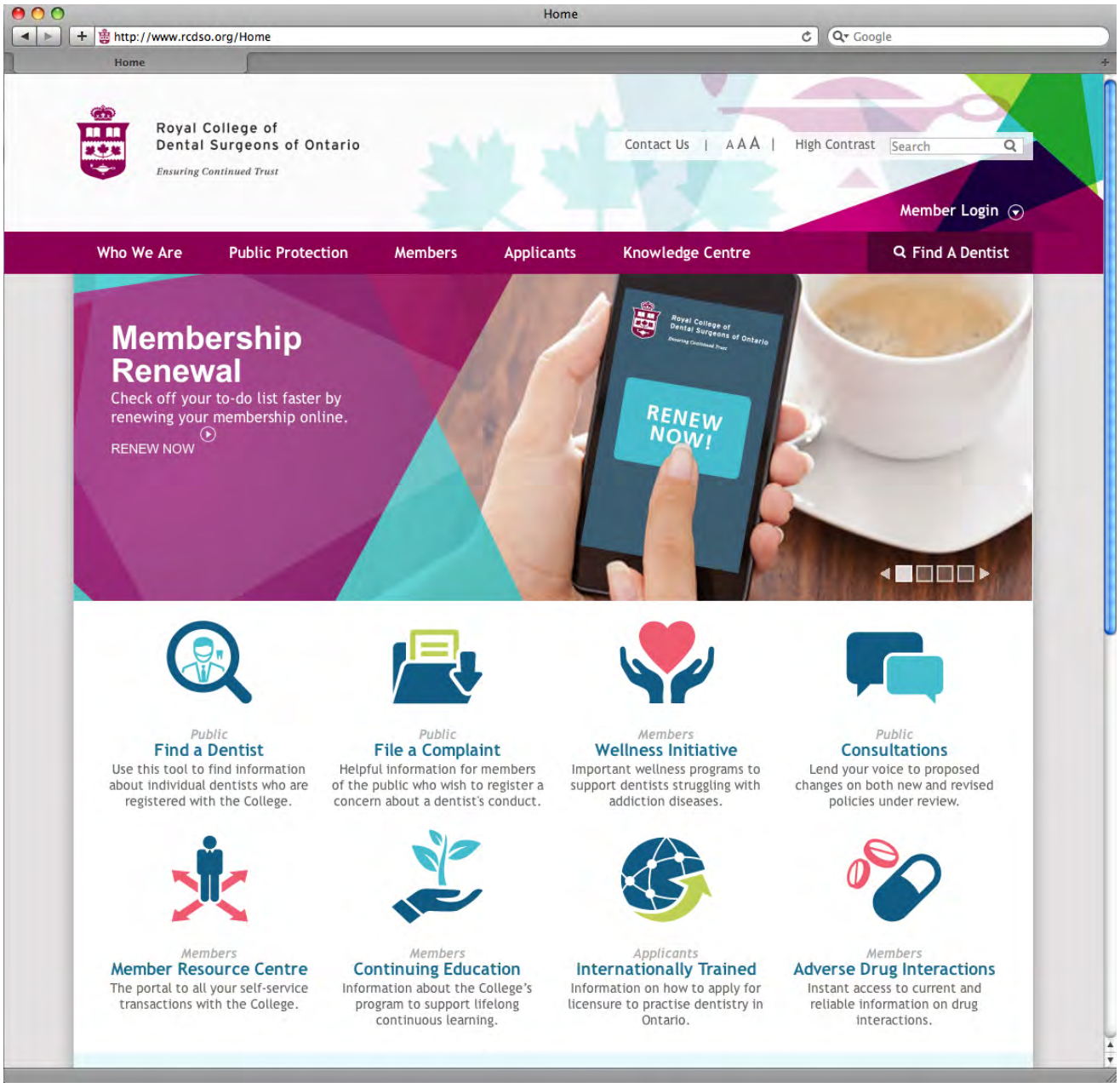
As you know, as Medical Officer of Health I am mandated by the Health Protection and Promotion Act to protect the public from health threats or hazards. With self-regulated professionals, the jurisdictions can get a bit blurry. However, a collaborative approach that we have just demonstrated works very well as we do share a common goal of protecting the public. As President of the Association of Local Public Health Agencies, I will share our collaboration experience with my colleagues as I think this can be a model for similar issues in other Public Health Unit jurisdictions across Ontario

Once again, thank you and your staff for you cooperation!

Best Regards

Dr. Paul Roumeliotis MD CM, MPH, FRCP(C)
Medical Officer of Health, Eastern Ontario Health Unit

APPENDIX 14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Public Protection
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Knowledge Centre
Find A Dentist
Membership Renewal
Check off your to-do list faster by renewing your membership online.
RENEW NOW
RENEW NOW!
Public
Find a Dentist
Use this tool to find information about individual dentists who are registered with the College.
Public
File a Complaint
Helpful information for members of the public who wish to register a concern about a dentist's conduct.
Members
Wellness Initiative
Important wellness programs to support dentists struggling with addiction diseases.
Public
Consultations
Lend your voice to proposed changes on both new and revised policies under review.
Members
Member Resource Centre
The portal to all your self-service transactions with the College.
Members
Continuing Education
Information about the College's program to support lifelong continuous learning.
Applicants
Internationally Trained
Information on how to apply for licensure to practise dentistry in Ontario.
Members
Adverse Drug Interactions
Instant access to current and reliable information on drug interactions.

College Policy:

Communication of Discipline Committee Decisions to Patients

1. A decision of a panel of the Discipline Committee ("panel") shall be communicated to patients when:

    a) a finding of professional misconduct has been made against the member in relation to the member's failure to maintain the standards of practice of the profession;

    b) the panel has concerns based on the evidence presented at the hearing, regarding the health of a patient or patients named in the Notice of Hearing and there has been a finding of professional misconduct specific to that patient(s); and

    c) the panel, at the conclusion of the hearing, has given written direction to the Registrar ("Direction") to do so.

2. If the above criteria have been met, the Registrar shall make reasonable attempts to notify patients in writing of the panel's finding of professional misconduct; the decision of the panel; and shall advise the patient or patients that he or she may wish to consult with an independent dentist regarding a health condition/oral health condition/treatment specified by the panel. Patients will be directed to the Register (website) for information respecting the results of the hearing.

3. Where a Direction is given under this policy, the member shall be notified of that fact by the College.

4. While this policy shall take effect immediately, panels of the Discipline Committee may consider whether to give a Direction to the Registrar where the policy came into effect after a hearing had begun or after a member entered into an Agreed Statement of Fact or Joint Submission on Penalty.

Passed by Council: June 2012

APPENDIX 16

Prepared for: The Best Practices and Thematic Task Team

On the Current State of Pre-arrival Supports among Canadian Regulators

Final Report

***Disclaimer*: The findings and recommendations expressed in this report are those of the author and do not reflect official policy or positions of the FLMM.**

Forum of Labour Market Ministers (FLMM)

The FLMM is an intergovernmental forum established to strengthen cooperation and strategic thinking on the labour market priorities of the provinces, territories and Canada. The FLMM is composed of federal-provincial-territorial ministers, deputy ministers and officials with labour market responsibilities. The FLMM was tasked with developing a principles-based, pan-Canadian framework to improve foreign qualification assessment and recognition processes across Canada. On November 30, 2009, governments responded by releasing *A Pan-Canadian Framework for the Assessment and Recognition of Foreign Qualifications* (the Framework).

The Foreign Qualifications Recognition Working Group (FQRWG), overseen by the FLMM, was established to guide and support the implementation of the Framework. This report was commissioned by the Best Practices and Thematic Task Team of the FQRWG.

This report was authored by:
Brian Baumal and Keith Johnson

3/31/2014

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the immigration process (i.e. the Educational Credential Assessment requirement) and the required assessment and process related to professional registration and licensure. CACB does not accept any third party assessment towards licensure. Therefore, to avoid confusion and costly duplication, Interviewees should be provided with clear indication, that if they are interested in licensure in Canada, they need CACB Academic Certification and the CACB is the sole organization recognized by the architectural profession in Canada to assess the educational qualifications of architecture graduates; this is an important distinction to sort out in terms of pre-arrivals support. CACB has brought this situation to CIC's attention.

Summary of Pre-Arrival Supports - Architecture

Pre-Arrival Support	Notes
Academic Certification Program	• An overview of the BEFA program focusing on general aspects of the program, modes of certification and the application forms: http://www.cacb-ccca.ca/certification
BEFA Program	• An overview of the BEFA program focusing on general aspects of the program http://www.cacb-ccca.ca/index.cfm?M=3943&Repertoire_No=660386109&Voir=menu • Eligibility requirement clearly discussed including seven years of practice in the home country and six months of practice under a Canadian architect - http://www.cacb-ccca.ca/index.cfm?Voir=sections&Id=16731&M=3943&Repertoire_No=660386109
BEFA Self-Assessment	• Allows applicants to submit work and demonstrate competencies in a number of areas in support of their application. The following link shows the guide to the self-assessment which can be completed overseas. https://befaonline.cacb.ca/HelpAndGuides/ENG/BEFA%20Self-Assessment-Guide-Eng-Final.pdf
Links To Provincial Regulators	• Linking to provincial regulators so that overseas applicants know that they must get in touch with provincial regulators as well for their final steps in licensing http://www.cacb-ccca.ca/index.cfm?Repertoire_No=660386109&Voir=liens_rech&Categorie_No=826

Dentistry

The National Dental Examining Board (NDEB) is responsible for establishing and maintaining a national standard of competence for dentists throughout Canada. At the direction of the Provincial Dental Regulatory Boards, the NDEB began an "Equivalency Process" in 2010. This process provides an alternate route to certification as a dentist in Canada for graduates of non-accredited dental programs. The Equivalency Process requires that international candidates from non-accredited programs pass three high-stakes assessments/exams: i) Assessment of Fundamental Knowledge, ii) Assessment of Clinical Judgement, iii) Assessment of Clinical Skills. The first two are written exams, with the third one being a practical simulation of dental techniques. Successful completion of these allows individuals to apply to take the NDEB Written and Objective Structured Clinical Examinations. Should a candidate wish to attend a Canadian dental school, Canadian Faculties of Dentistry will also use results of select assessments in the admission process for the purposes of determining advanced standing. At present,

the exams associated with the Equivalency Process are offered at 10 locations in Canada. The first exam, the Assessment of Fundamental Knowledge is offered in London, England and there are plans to offer them in other locations throughout the world that have acceptable security, with a specific focus on Hong Kong and New Zealand[15]. Information from both the interview for this project and from the NDEB website [16] indicates that the NDEB will consider offering all three exams (including the practical clinical skills exam) outside of Canada if there are a minimum of 50 applicants and sites that have acceptable security with them.

The NDEB also offers an online self-assessment quiz so that individuals can prepare for the exams and make relevant decisions about challenging the exams while in their home country. Once the self-assessment is done, anyone who has completed a four-year dental program can apply. There is no formal assessment or equivalency of credentials that is carried out (though verification is done) which speeds up the process and is considered a pre-arrival support. Applications can be submitted electronically. According to the NDEB, approximately 600 graduates of non-accredited programs have obtained a license since the Equivalency Process began in 2010.

Another set of pre-arrival supports are Mutual Recognition Agreements that have been established by the Commission on Dental Accreditation of Canada at the request of the CDRAF (Canadian Dental Regulatory Authorities Federation), with NDEB lending assistance. There is a sense that these may be the proverbial wave of the future in terms of international credential recognition. They are initiated and administered by the Commission on Dental Accreditation of Canada, again at the request of the CDRAF with support from the NDEB. There has been an agreement with the American Dental Association for decades. More recently MRAs have been signed with Australia for those who graduated on or after March 2010, New Zealand for those who graduated on or after December 14, 2011 and Ireland for those who graduated on or after December 5, 2012. About 500 graduates of accredited programs outside of Canada have also received licenses through MRAs, with about 200 receiving licenses every year through MRAs.[17]

Along with opening-up testing centres for its Assessment of Fundamental Knowledge exam and continuing to implement MRAs there are other pre-arrivals initiatives in which NDEB is engaging:

- The Royal College of Dental Surgeons of Ontario (RCDSO) and the dental regulators across the country espouses a practice of "continuous improvement" attitude and championing the cause at senior levels of the organization.[18] Each application, and in fact each communication with an internationally trained dentist is reviewed in light of how the registration process can be improved. That is to say they will look and see if internationally educated dentists understand the process and if not where those misunderstandings occur, and will then set-out to correct those errors and/or make necessary improvements with better communications or additional

[15] Accessed through Assessment of Fundamental Knowledge Exam information - http://www.ndeb.ca/nonaccredited/fundamental-knowledge/dates-fees
[16] http://www.ndeb.ca/nonaccredited/clinical-skills/dates-fees
[17] Written statement provided by Rob Lees, Manager of Registration for The Royal College of Dental Surgeons of Ontario and Dr. Jack Gerrow, Executive Director of NDEB (December 11, 2013)
[18] Interview with Rob Lees Manager of Registration for The Royal College of Dental Surgeons of Ontario and Dr. Jack Gerrow Executive Director of NDEB (December 11, 2013).

tools. The Canadian Dental Regulatory Authorities Federation and various provincial regulators reference the NDEB and the process/pathways for registration. These are accessible for internationally trained dentists in addition to CIC personnel. There is a sense that CIC personnel need to better access this information so that they can better counsel applicants about their chances of becoming dentists in Canada.

The RCDSO produces information sheets about the assessment/licensing process that are refined on a continuous basis. A "Career Map" was developed in 2007 and a CIC information sheet in 2012. It is important to note that the RCDSO constantly reviews these sheets based on its interactions with international applicants. They are always looking to provide the most accurate and up-to-date information to applicants and will use their communications with them to hone the information. That is, if they find applicants do not understand a part of the process, or if the same questions or errors keep coming up, they will change the information accordingly. Client responsiveness appears to be one of the key factors in how the RCDSO operates. In response to some major misconceptions about the national process a new document was created in 2013 entitled *Assessing Training Completed Outside of Canada*. The RCDSO (there is also a version on the CDRAF national website) believe this very honestly, in a clear and transparent manner, explains the NDEB assessment protocol, methods and reasons for its development. It provides insight on immigration issues, appeals, the science behind assessments and validation and generally addresses the main contentious questions individuals have raised.

Funding for the national assessments and examinations including any pre-arrival supports is the responsibility of the NDEB and is based on a cost recovery formula. Expenses assumed by the RCDSO and the CDRAF associated with attending international conferences, making contacts with other regulators around the world, communications development and so forth are paid for through membership fees of the dental regulatory bodies. Neither the NDEB nor the RCDSO/CDRAF relies on funding from outside sources.

Summary of Pre-Arrival Supports - Dentistry

Pre-Arrival Support	Notes
Accredited Dental Programs (MRA's)	• Graduates of Accredited Dental Programs, Accredited Qualifying/Degree Completion Programs, and individuals who have successfully completed the NDEB Equivalency Process are required to successfully complete the National Dental Examining Board of Canada Written Examination and Objective Structured Clinical Examination (OSCE) for certification as a general dentist in Canada. • General information about the process for an individual who graduated from an institution with which the NDEB has an MRA - http://ndeb.ca/accredited • Additional information about licensing requirements http://www.rcdso.org/sectionapplicants www.cdraf.org
Non-Accredited Programs	• General Information about the process if an international dentist is from a non-accredited program – http://ndeb.ca/nonaccredited • Self-assessment quiz is offered online to help candidates determine their readiness to challenge the three Equivalency Exams (Assessment of Fundamental Knowledge/Clinical Skills/Clinical Judgment) http://ndeb.ca/nonaccredited/self-assessment-quiz

	• Details about Assessment of Fundamental Knowledge Exam. - http://ndeb.ca/nonaccredited/fundamental-knowledge/dates-fees • Information for those from non-accredited international programs http://www.ndeb.ca/nonaccredited • Additional information about licensing requirements http://www.rcdso.org/sectionapplicants www.cdraf.org

REGISTRATION PRACTICES ASSESSMENT REPORT — *The Royal College of Dental Surgeons of Ontario (RCDSO)*

Office of the Fairness Commissioner
595 Bay Street, Suite 1201
Toronto ON M7A 2B4
Canada

416 325-9380 or 1 877 727-5365
ofc@ontario.ca
www.fairnesscommissioner.ca

Final report: September 20, 2013

The Office of the Fairness Commissioner is an arm's-length agency of the Ontario government, established under the Fair Access to Regulated Professions and Compulsory Trades Act, 2006. Its mandate is to ensure that certain regulated professions have registration practices that are transparent, objective, impartial and fair.

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Introduction

- **Assessment Cycle**
- **Focus of This Assessment and Report**

Assessment Summary

- **General Duty**
- **Commendable Practices**
- **Recommendations**
- **Assessment History**

Detailed Report

- **General Duty**
  - *Transparency*

Background

- **Assessment Methods**

AVAILABILITY OF REPORT

This report is provided by the OFC to the regulatory body assessed. The OFC will, upon request, release the report to other parties. The OFC will also post a summary of the report on its website. In the interest of transparency and accountability, the OFC encourages regulatory bodies to provide the detailed report to its staff, council members, the public, and other interested parties.

INTRODUCTION

Assessment is one of the Fairness Commissioner's mandated roles under the Regulated Health Professions Act, 1991 (RHPA).

ASSESSMENT CYCLE

To hold regulatory bodies accountable for continuous improvement, the OFC assesses their licensing practices using a two-year assessment cycle.

Assessment cycles alternate between **full assessments** and **targeted assessments**:

- Full assessments address all specific and general duties described in the RHPA.
- Targeted assessments focus on the areas where the OFC made recommendations in the previous full assessment.

This approach establishes continuity between the assessment cycles.

FOCUS OF THIS ASSESSMENT AND REPORT

The targeted assessment of this regulatory body focused on the areas where the OFC made recommendations in the previous full assessment.

The OFC's detailed report captures the results of the targeted assessment. The assessment summary provides the following key information from the detailed report:

- duties that were assessed
- an overview of comments related to the general duty
- commendable practices
- recommendations

ASSESSMENT SUMMARY

GENERAL DUTY

Assessment Method

The regulatory body selected one of the following three methods for the assessing of its adherence to the general-duty principles, and informed the OFC:

a. OFC assesses based on the practices listed in the assessment guide ☐

b. Regulatory body self-assesses based on the practices in the assessment guide ☑

c. Regulatory body self-assesses using a system-based approach, in which it explains what it does to ensure that its practices are adhering to the general-duty principles ☐

Principles assessed

As a result of the recommendations made in the full assessment, the regulatory body has been assessed on the principle(s) marked below:

Transparency ☑

Objectivity ☐

Impartiality ☐

Fairness ☐

Comments

The OFC found that since the last assessment, the Royal College of Dental Surgeons of Ontario (RCDSO) has demonstrated all general-duty practices related to transparency.

COMMENDABLE PRACTICES

A *commendable practice* is a program, activity or strategy that goes beyond the minimum standards set by the OFC assessment guides, considering the regulatory body's resources and profession-specific

context. Commendable practices may or may not have potential for transferability to another regulatory body.

The regulatory body is demonstrating commendable practices in the following areas.

Transparency

- ensuring that policies and criteria are readily available to staff and decision-makers through several instructional binders, including the RCDSO's *Registration Membership Policy Manual* and *Registration How-to Guide*. The binders:
    - contain easy-to-understand resources for staff and decision-makers who are involved in registration. For example, the how-to guide contains many plain-language procedures, instructions and policies on how to deal with day-to-day problems and questions that staff may encounter.
    - provide detailed explanations about processes and documentation used in international jurisdictions
    - are quickly updated to ensure that they are consistent and accurately describe policies and procedures
- ensuring that all staff members are informed electronically about upcoming changes to registration information
- in 2013, asking the Professional Standards Authority (PSA) in the United Kingdom to review the RCDSO's performance as a regulator against the PSA's Standards of Good Regulation. The PSA issued a report on the RCDSO's performance, which the RCDSO published on its website. The review was an independent assessment of how the RCDSO was performing compared to regulators in other countries. This proactive approach to external assessment of its governance and processes demonstrates the RCDSO's openness towards ensuring public accountability.
- providing, in its registration information, a detailed explanation about its conduct requirement. The explanation:
    - informs applicants that they will be asked for information and documentation about past and present conduct
    - includes examples, processes and rationales for the types of information requested and helps applicants to better prepare to show that they meet this requirement
- creating a new dedicated section on the RCDSO website, called "How is Training Completed Outside of Canada Assessed?" This section explains:
    - the roles of the RCDSO and its third parties – the Commission on Dental Accreditation of Canada and the National Dental Examining Board of Canada – in the assessment process
    - global differences in dental training
    - competency standards used in curriculum development, standard setting, exam development, and assessment procedures
    - immigration matters and pathways to registration that are commonly asked about

  The RCDSO has provided these explanations as a result of increased feedback from individuals who need more information about the assessment processes. RCDSO plans to further develop this section to make it easier to access particular topics.

- in 2012, reviewing registration information on the RCDSO website, revising and improving the information, and redesigning the website. The improved website includes clearer information for applicants, and is more accessible and user-friendly.

RECOMMENDATIONS

The OFC has not made any recommendations for this assessment period.

The OFC expects that the RCDSO will continue maintaining its standards in the future.

In the spirit of continuous improvement, the OFC encourages the RCDSO to continue its efforts towards more transparent, objective, impartial and fair registration process.

ASSESSMENT HISTORY

In the previous assessment, the OFC identified three recommendations for this regulatory body.

They have all been implemented.

DETAILED REPORT[1]

GENERAL DUTY

Legislation: RHPA, Schedule 2, S.22.2 The College has a duty to provide registration practices that are transparent, objective, impartial and fair.

Transparency:
A process is transparent if it is conducted in such a way that it is easy to see what actions are being taken to complete the process, why these actions are taken, and what results from these actions. In the regulatory context, transparency of the registration process encompasses the following:

- Openness: having measures and structures in place that make it easy to see how the registration process operates
- Access: making registration information easily available
- Clarity: ensuring that information used to communicate about registration is complete, accurate and easy to understand

Assessment Comments*:*

The Royal College of Dental Surgeons of Ontario (RCDSO) demonstrates all aspects of transparency.

Openness:

The RCDSO uses effective strategies to ensure the following:

- registration policies and criteria are readily available to registration staff and decision-makers
- policies and criteria are regularly reviewed and updated
- all registration staff and decision-makers who are responsible for implementing policies and criteria are promptly informed of changes to policy.

The RCDSO takes adequate steps to ensure that applicants can see that the documented policies have been followed in their case.

Access:

The RCDSO takes measures to ensure that applicants have all relevant information at the time and in the way needed to take actions appropriate to their individual circumstances including information about fees, timelines and steps an applicant can take in the registration process from outside of Canada. The RCDSO provides applicants with information about the role and the requirements of the third parties with whom applicants come into contact during the registration process.

Clarity

The RCDSO communicates well with applicants throughout the registration process. There are processes to communicate with applicants about their application before, during and after application. The RCDSO takes measures to ensure that applicants know how their application progresses and understand the reasons for all decisions taken during the registration process.

[1] Please note: Suggestions for continuous improvement appear only in the detailed report. Suggestions for improvement are not intended to be recommendations for action to demonstrate a practice, but are made solely to provide suggestions for areas that a regulatory body may consider improving in the future.

Commendable practices:

- ensuring that policies and criteria are readily available to staff and decision-makers through several instructional binders, including the RCDSO's *Registration Membership Policy Manual* and *Registration How-to Guide*. The binders:
    - contain easy-to-understand resources for staff and decision-makers who are involved in registration. For example, the how-to guide contains many plain-language procedures, instructions and policies on how to deal with day-to-day problems and questions that staff may encounter.
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BACKGROUND

ASSESSMENT METHODS

Assessments are based on the *Registration Practices Assessment Guide – For Health Regulatory Colleges*. The guide presents registration practices relating to the specific duties and general duty in the RHPA.

A regulatory body's practices can be measured against the RHPA's specific duties in a straightforward way. However, the general duty is broad, and the principles it mentions (transparency, objectivity, impartiality and fairness) are not defined in the legislation.

As a result, the specific-duty and general-duty obligations are assessed differently (see the *Strategy for Continuous Improvement of Registration Practices*).

Specific Duties

The OFC can clearly determine whether a regulatory body demonstrates the specific-duty practices in the assessment guide. Therefore, for each specific-duty practice, the OFC provides one of the following assessment outcomes:

- Demonstrated – all required elements of the practice are present or addressed
- Partially Demonstrated – some but not all required elements are present or addressed
- Not Demonstrated – none of the required elements are present or addressed
- Not Applicable – this practice does not apply to this regulatory body

General Duty

Because there are many ways that a regulatory body can demonstrate that its practices, overall, are meeting the principles of the general duty, the OFC makes assessment *comments* for the general duty, rather than identifying assessment outcomes. For the same reason, assessment comments are made by principle, rather than by practice.

For information about the OFC's interpretations of the general-duty principles and the practices that the OFC uses as a guideline for assessment, see the *Registration Practices Assessment Guide – For Health Regulatory Colleges*.

Commendable Practices and Recommendations

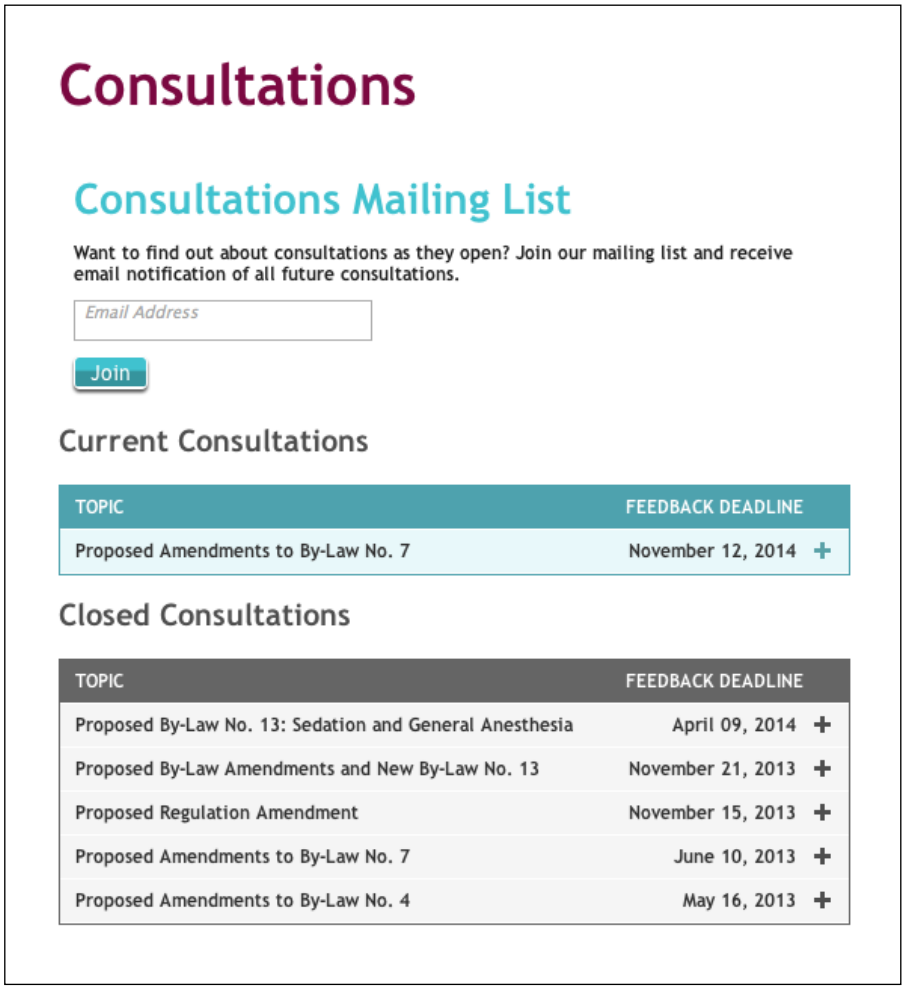
Where applicable, the OFC identifies commendable practices or recommendations for improvement related to the specific duties and general duty.

Sources

Assessment outcomes, comments, and commendable practices and recommendations are based on information provided by the regulatory body. The OFC relies on the accuracy of this information to produce the assessment report. The OFC compiles registration information from sources such as the following:

- Fair Registration Practices Reports, audits, Entry-to-Practice Review Reports, annual meetings
- the regulatory body's:
    - website
    - policies, procedures, guidelines and related documentation templates for communication with applicants
    - regulations and bylaws
    - internal auditing and reporting mechanisms
    - third-party agreements and related monitoring or reporting documentation
    - qualifications assessments and related documentation
- targeted questions/requests for evidence that the regulatory body demonstrates a practice or principle

For more information about the assessment cycle, assessment process, and legislative obligations, see the *Strategy for Continuous Improvement of Registration Practices.*



Consultations

Consultations Mailing List

Want to find out about consultations as they open? Join our mailing list and receive email notification of all future consultations.

Email Address

Join

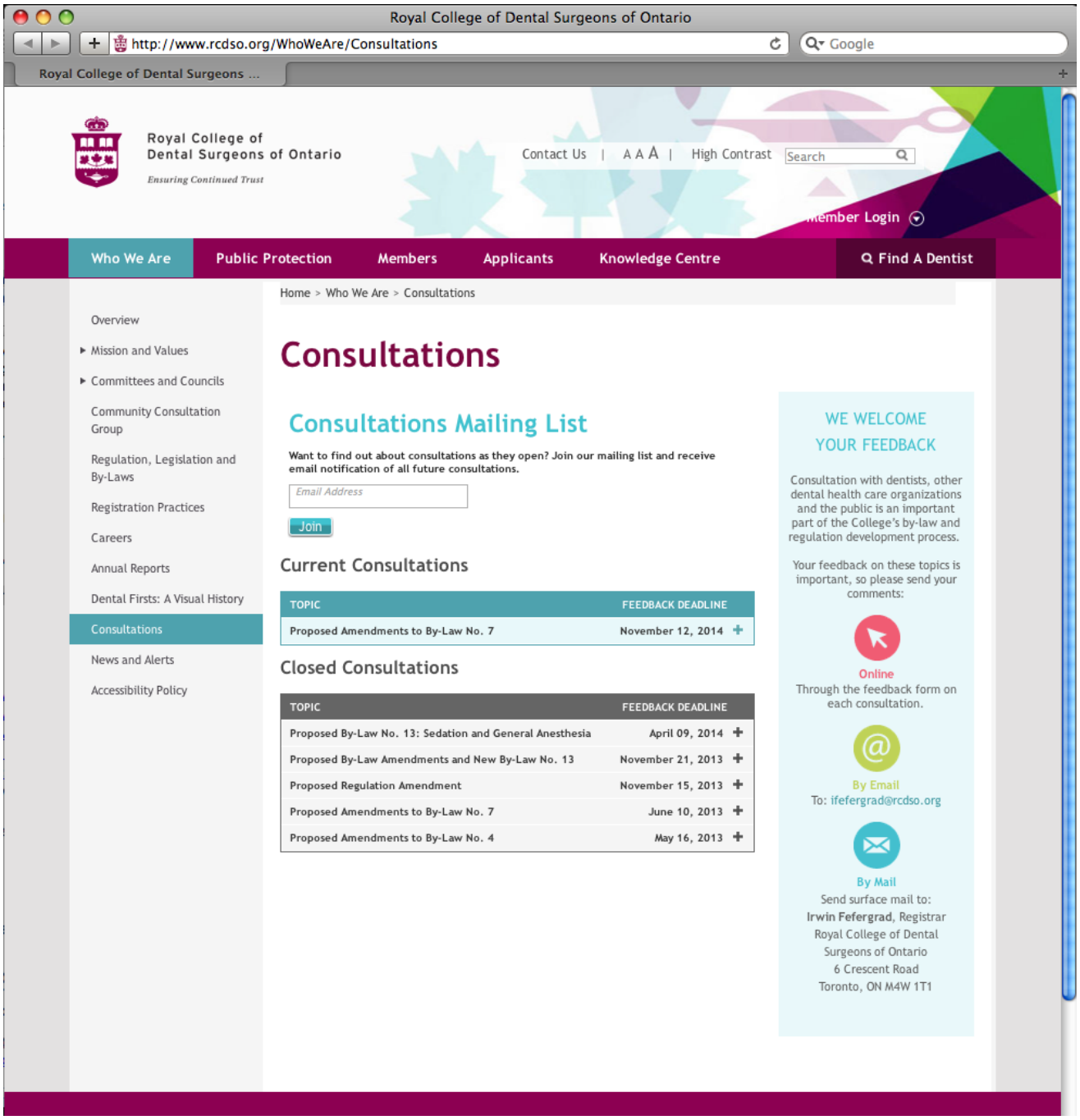
Current Consultations

TOPIC	FEEDBACK DEADLINE
Proposed Amendments to By-Law No. 7	November 12, 2014 +

Closed Consultations

TOPIC	FEEDBACK DEADLINE
Proposed By-Law No. 13: Sedation and General Anesthesia	April 09, 2014 +
Proposed By-Law Amendments and New By-Law No. 13	November 21, 2013 +
Proposed Regulation Amendment	November 15, 2013 +
Proposed Amendments to By-Law No. 7	June 10, 2013 +
Proposed Amendments to By-Law No. 4	May 16, 2013 +

APPENDIX 19


Royal College of Dental Surgeons of Ontario
http://www.rcdso.org/WhoWeAre/Consultations
Google
Royal College of Dental Surgeons ...
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Ensuring Continued Trust
Contact Us | A A A | High Contrast
Search
Member Login
Who We Are
Public Protection
Members
Applicants
Knowledge Centre
Find A Dentist
Home > Who We Are > Consultations
Overview
Mission and Values
Committees and Councils
Community Consultation Group
Regulation, Legislation and By-Laws
Registration Practices
Careers
Annual Reports
Dental Firsts: A Visual History
Consultations
News and Alerts
Accessibility Policy
Consultations
Consultations Mailing List
Want to find out about consultations as they open? Join our mailing list and receive email notification of all future consultations.
Email Address
Join
Current Consultations
TOPIC
FEEDBACK DEADLINE
Proposed Amendments to By-Law No. 7
November 12, 2014
Closed Consultations
TOPIC
FEEDBACK DEADLINE
Proposed By-Law No. 13: Sedation and General Anesthesia
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November 21, 2013
Proposed Regulation Amendment
November 15, 2013
Proposed Amendments to By-Law No. 7
June 10, 2013
Proposed Amendments to By-Law No. 4
May 16, 2013
WE WELCOME YOUR FEEDBACK
Consultation with dentists, other dental health care organizations and the public is an important part of the College's by-law and regulation development process.
Your feedback on these topics is important, so please send your comments:
Online
Through the feedback form on each consultation.
By Email
To: ifefergrad@rcdso.org
By Mail
Send surface mail to:
Irwin Fefergrad, Registrar
Royal College of Dental Surgeons of Ontario
6 Crescent Road
Toronto, ON M4W 1T1

Royal College of
Dental Surgeons of Ontario

Ensuring Continued Trust

6 Crescent Road, Toronto, ON Canada M4W 1T1
T: 416.961.6555 F: 416.961.5814 Toll Free: 1.800.565.4591 www.rcdso.org

YOUR VOICE

Application for Community Consultation Group

DATE

NAME

POSTAL ADDRESS

DAY TIME PHONE CELL PHONE

EMAIL ADDRESS

DETAILS OF RELEVANT COMMUNITY INVOLVEMENT

ADDITIONAL INFORMATION (if needed)

☐ **I attest that I am not a registered health care provider, nor am I involved either directly or indirectly with the delivery of oral health care in the province.**

Signature

Date

HOW TO APPLY:

Please submit your application to RCDSO Registrar Irwin Fefergrad. The deadline is **Friday, November 7, 2014**.

By surface mail: 6 Crescent Road, Toronto, ON M4W 1T1

By email: ifefergrad@rcdso.org

10/14_3726

Royal College of
Dental Surgeons of Ontario

Ensuring Continued Trust

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T: 416.961.6555 F: 416.961.5814 Toll Free: 1.800.565.4591 www.rcdso.org

YOUR VOICE

Community Consultation Group Terms of Reference

PURPOSE

The Community Consultation Group will complement the role of public appointees on the governing Council by:

- providing consumer and community perspectives and advice about issues relevant to the College;
- providing advice from a consumer and community perspective on College standards, guidelines, bylaws, policies and other specific issues, as requested by the College;
- providing consumer and community perspectives and advice to the College about issues relevant to self-regulation in the public's interest.

While members of the Community Consultation Group are a conduit between communities and RCDSO, it or its members are not representative of any particular communities. Members of the Community Consultation Group represent only themselves and share opinions as individuals.

ACCOUNTABILITY

The Community Consultation Group will have an advisory role. It has no decision-making power. The recommendations of the group will be provided for information to the Executive Committee and Council of the RCDSO.

MEMBERSHIP

The Community Consultation Group will have up to 20 community members selected by Executive Committee through an expression of interest process. Members will be appointed for a one year term by Executive Committee with eligibility for reappointment for one term at the discretion of the Executive Committee.

ELIGIBILITY

Any resident of Ontario is invited to apply. However, persons involved in or associated, either directly or indirectly, with the delivery of oral health care in the province will not be considered as eligible. No registered health care practitioner is eligible.

REMUNERATION

The stipend and expenses covered by the College for members of the Community Consultation Group will be the same as those established by the Ontario government for public appointees to the RCDSO governing Council.

MEETINGS

The Community Consultation Group will meet face-to-face at least twice a year. The Community Consultation Group may also meet by teleconference or through other electronic means. Summaries of the meetings of the Community Consultation Group will be posted on the RCDSO website after each of its meetings.

CONFIDENTIALITY

Members will be asked to abide by a signed confidentiality agreement.

SECRETARIAT

The Community Consultation Group will be supported by senior staff from the College who will act as the group's secretariat.

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Royal College of
Dental Surgeons of Ontario

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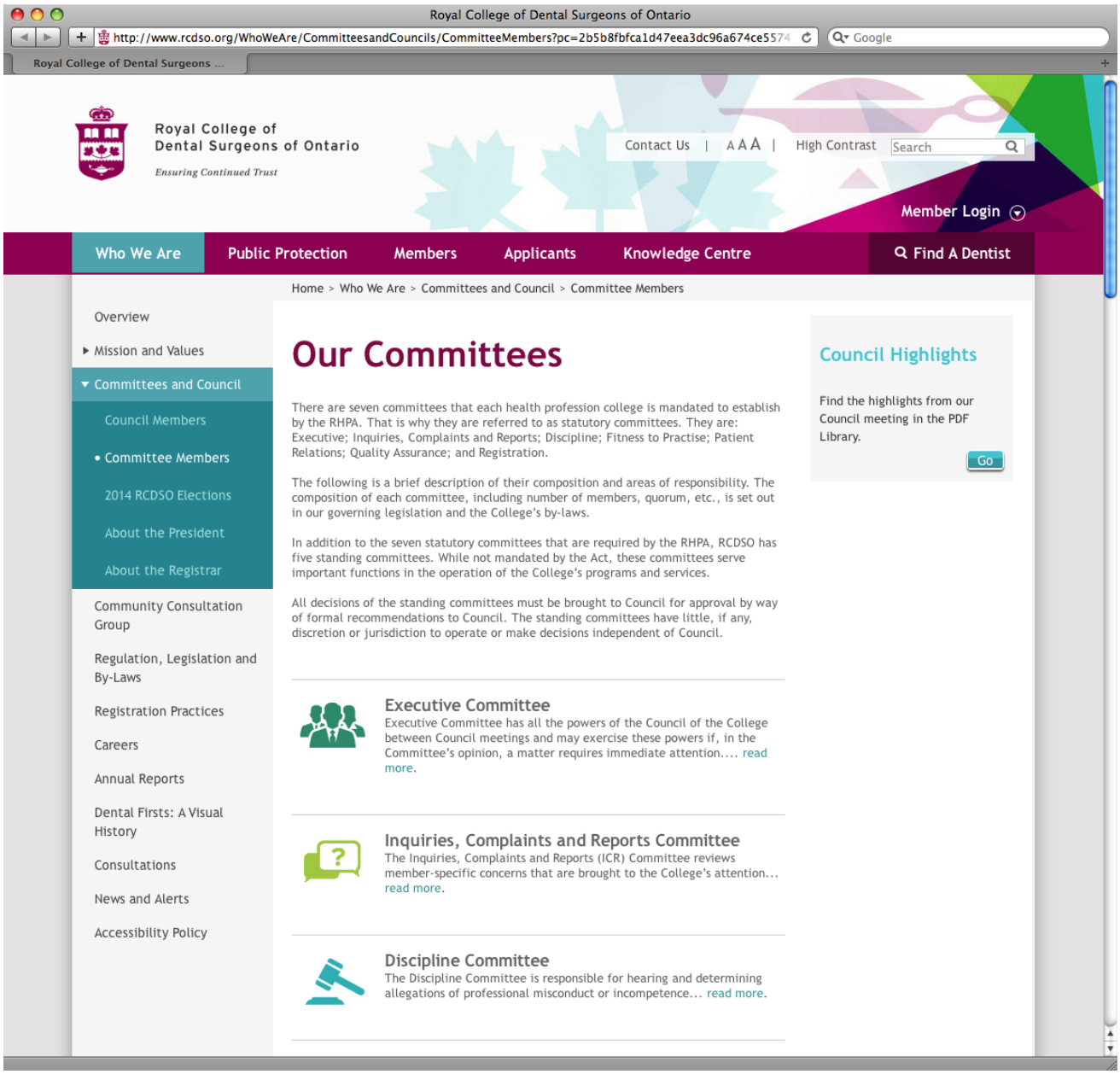
Royal College of Dental Surgeons of Ontario
http://www.rcdso.org/WhoWeAre/CommitteesandCouncils/CommitteeMembers?pc=2b5b8fbfca1d47eea3dc96a674ce5574
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Committee Members
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About the Registrar
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Accessibility Policy
Our Committees
There are seven committees that each health profession college is mandated to establish by the RHPA. That is why they are referred to as statutory committees. They are: Executive; Inquiries, Complaints and Reports; Discipline; Fitness to Practise; Patient Relations; Quality Assurance; and Registration.
The following is a brief description of their composition and areas of responsibility. The composition of each committee, including number of members, quorum, etc., is set out in our governing legislation and the College's by-laws.
In addition to the seven statutory committees that are required by the RHPA, RCDSO has five standing committees. While not mandated by the Act, these committees serve important functions in the operation of the College's programs and services.
All decisions of the standing committees must be brought to Council for approval by way of formal recommendations to Council. The standing committees have little, if any, discretion or jurisdiction to operate or make decisions independent of Council.
Executive Committee
Executive Committee has all the powers of the Council of the College between Council meetings and may exercise these powers if, in the Committee's opinion, a matter requires immediate attention.... read more.
Inquiries, Complaints and Reports Committee
The Inquiries, Complaints and Reports (ICR) Committee reviews member-specific concerns that are brought to the College's attention... read more.
Discipline Committee
The Discipline Committee is responsible for hearing and determining allegations of professional misconduct or incompetence... read more.
Council Highlights
Find the highlights from our Council meeting in the PDF Library.
Go

From the Chief Executive

professional standards authority

BY E-MAIL

Mr Irwin Fefergrad CS BA BCL LLB
Registrar
Royal College of Dental Surgeons of Ontario
6 Crescent Road
Toronto, ON
M4W 1T1
Canada

17 June 2012

Dear Irwin,

Performance Review of the Royal College of Dental Surgeons of Ontario

I am pleased to submit our report to the College for consideration by your Council.

Our report makes clear that we consider that the College meets all the relevant standards of good regulation and that it demonstrates best practise in a number of areas. We make a small number of recommendations with the aim of assisting you in improving some internal processes or enhancing the quality of the work you already do.

We would be pleased to receive your formal response to the report and its recommendations in due course. The report will also need to be approved by our Board. As you know it is our intention to publish our report and your response simultaneously with you, on a date to be agreed between us. Publication will benefit the wider regulation community and demonstrate our shared commitment to transparency in the public interest.

I should like to take this opportunity to thank you and Dr Peter Trainor personally for your commitment to this process which has been constructive and assiduous throughout. We also thank your Council members and staff who have contributed and been unfailingly helpful and open. We are also grateful for the contributions of a number of external organisations and individuals.

Yours sincerely,

Harry Cayton OBE
Chief Executive

The Professional Standards Authority for Health and Social Care
157-197 Buckingham Palace Road, London SW1W 9SP
T 020 7389 8030 F 020 7389 8040 www.professionalstandards.org.uk

Royal College of
Dental Surgeons of Ontario

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6 Crescent Road, 3rd Floor
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Toll Free: 800.565.4591 www.rcdso.org

June 24, 2013

VIA E-MAIL

Mr. Harry Cayton
Chief Executive
The Professional Standards Authority for
Health and Social Care
157-197 Buckingham Palace Road
London, SW1W 9SP

Dear Mr. ~~Cayton~~ Harry:

Re: Performance Review of the Royal College of Dental Surgeons of Ontario

I agree with you to publish the report at the same time, 9am (our time)/2pm (your time) on June 25, 2013.

With respect to the recommendations, we have begun the process of implementing recommendations 9.1, 9.2, 9.4, 9.5, 9.6, 9.7 and 9.10.

With respect to recommendation 9.3, sometime ago we began discussions on a national level to have standards around accommodation to people with disabilities who wish to practice as dentists. An excellent example of this is our Blood Borne Pathogen Expert Panel recommendations which we have implemented. Our Patient Relations Committee has placed on its agenda further discussions in this area.

With respect to recommendation 9.8, it is a slippery slope to have staff do more than what it is now doing. The statutory committees need to do what they are required to do under the legislation and the staff function should not cross over into that.

With respect to recommendation 9.9, in that all health colleges in Ontario face the same challenge, we will explore with them this suggestion. At the end of the day, all agree the best suggestion is to modify the legislation with respect to requiring every complaint to be treated in the same way.

With respect to recommendation 9.11, we disagree with this recommendation in its entirety. The results at our appeal bodies, be it HPARB or Divisional Court, have repeatedly complimented us on the fullness of our decisions and reasons for decision. In addition, the decisions are available on our website for all to see.

We are very grateful for your report and for your conclusions that our College meets all of the relevant standards of good regulation and that we demonstrate best practices in a number of areas.

We must commend you, Douglas and your team for a very thorough, professional, engaging and thought-provoking process. We all found it very helpful and meaningful. We learned much from it and, based on your report, as a good regulator protecting the public interest, we hope to improve and be better.

We thank you for all of your efforts and patience and look forward to an ongoing and continued relationship.

We believe that this process of engaging an independent and objective expert group is something that should be promoted in Ontario and in Canada, and we certainly will do that.

Yours truly,

Dr. Peter Trainor
President

Irwin Fefergrad, C.S., B.A., B.C.L., LL.B
Registrar
(Certified as a Specialist by the Law Society of Upper Canada in Civil Litigation and Health Law)

AMS:450372

A review conducted for the Royal College of Dental Surgeons of Ontario

June 2013

professional standards authority

About the Professional Standards Authority

The Professional Standards Authority for Health and Social Care promotes the health, safety and wellbeing of patients, service users and the public by raising standards of regulation and voluntary registration of people working in health and care. We are an independent body, accountable to the UK Parliament.

We oversee the work of nine statutory bodies that regulate health professionals in the UK and social workers in England. We review the regulators' performance and audit and scrutinise their decisions about whether people on their registers are fit to practise.

We also set standards for organisations holding voluntary registers for people in unregulated health and care occupations and accredit those organisations that meet our standards.

To encourage improvement we share good practice and knowledge, conduct research and introduce new ideas including our concept of right-touch regulation. We monitor policy developments in the UK and internationally and provide advice to governments and others on matters relating to people working in health and care. We also undertake some international commissions to extend our understanding of regulation and to promote safety in the mobility of the health and care workforce.

We are committed to being independent, impartial, fair, accessible and consistent. More information about our work and the approach we take is available at www.professionalstandards.org.uk

About The Royal College of Dental Surgeons of Ontario[1]

'The Royal College of Dental Surgeons of Ontario (RCDSO) has a long and illustrious history. On March 4 1868 the first Dental Act in the world received Royal Assent in the Ontario Legislature.

Today our mission is to protect the public's right to quality dental services. Our goal is a responsible and responsive system of self-regulation in partnership with the public. We are committed to the principles of transparency, accessibility, openness and fairness.

The College issues certificates of registration to dentists to allow them to practise dentistry, monitors and maintains standards of practice, investigates complaints against dentists who may be incompetent or have committed an act of professional misconduct.

The governing Council of the College is composed of 12 dentists, elected by dentists, nine to 11 members of the public nominated by the provincial government, and two further dentists who are appointed one each from the university dental faculties in Ontario. The public members play a vital part in the College's work. Their full involvement is central to the College's desire for inclusiveness and accountability.'

[1] Description adapted from the College's Annual Report 2012

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1. Introduction

1.1 This report follows a request from the Royal College of Dental Surgeons of Ontario, Canada for a review of their performance as a regulator of dental surgeons in Ontario against our Standards of Good Regulation. The College wished to benchmark its performance against other regulators, to confirm where it was performing well and to identify any areas for improvement. The *Standards of Good Regulation*[2] were adapted to reflect the particular context and statutory responsibilities of regulators in Ontario. The review was carried out between February and May 2013.

1.2 The Professional Standards Authority undertakes annual performance reviews of the nine health professional regulatory bodies in the UK as part of our statutory responsibilities. We publish the outcome of those reviews annually to the UK Parliament and the devolved administrations. We have also, following requests from the organisations concerned, conducted reviews for the Medical Council of New Zealand, the General Teaching Council for England, the General Social Care Council in England, the Nursing Council of New Zealand and for the UK's Nursing and Midwifery Council. All of these reports are available on our website. We welcome the willingness of the RCDSO to submit itself to this review and the active co-operation we received.

1.3 Although the Authority has no statutory oversight of the RCDSO, we consider that there are mutual benefits in this review. There are benefits to the RCDSO in having an independent assessment which benchmarks its performance in relation to other regulators internationally. At the same time we have the opportunity to learn about different approaches to professional regulation and regulatory practice, which, following publication of this report will be shared with regulatory bodies in the UK, Canada and internationally. This was a welcome opportunity to study a regulator in Ontario given the long standing international interest in the Ontario model, and it has been our first such exercise in Canada. There is value to the international community of regulators from learning from each other and we are grateful to the RCDSO for its contribution to this by commissioning this report.

1.4 We thank the Council and staff of the RCDSO for their positive engagement and co-operation with this review, for their readiness to provide us with the background information, paperwork and case files we needed and for the many hours they spent between them answering our questions and explaining their processes. This report has depended greatly on their openness and co-operation and regular contact between us over a period of four months. We have also benefited from the perspectives of other stakeholders who we met in Toronto.

[2] Council for Healthcare Regulatory Excellence, June 2010. *The Performance Review Standards: Standards of Good Regulation.*

2. The scope of the review and our methodology

2.1 The Authority has an established process for undertaking performance reviews. This is based on a set of standards, which we developed in liaison with the UK health professional regulators and other stakeholders including patients and the public. These are called the standards of good regulation[3].

2.2 In early discussions with the RCDSO we discovered that both the scope of their activities and the terminology used to describe them varied in some significant ways from the UK regulators. We therefore worked with the College to adapt the standards of good regulation to ensure they were relevant to the work of the RCDSO and to the legislative framework in Ontario. In this review therefore we have looked at the RCDSO's performance only in relation to:

- the setting of standards and provision of guidance for dentists
- the registration and renewal of dentists, and
- the investigation and resolution of complaints about dentists.

2.3 We have set out the standards we agreed with the RCDSO would form the focus of this report in section 11. The standards are those which are required to be met by any effective regulator, and do not reflect the full range of the College's activities. At an early stage of the process the College sent us voluminous information about the full range of its activities and subsequently in the course of the review we have had opportunities to learn about the depth and range of the College's work, not all of which falls within the standards against which we are judging it. In some areas, such as the College's Quality Assurance Programme, we offer an assessment to some extent under the standards, but have not explored the programme in full. The report that follows is structured around and focuses on our assessment of the College's performance against each of the agreed standards.

2.4 We have also looked at the context in which regulation operates in Ontario as set out in particular in the Regulated Health Professions Act 1991 and the Dentistry Act 1991. We have taken account of the respective roles of the Health Professions Appeal and Review Board, the Health Professions Regulation Advisory Committee and the Fairness Commission.

2.5 In brief, the procedure followed in this review involved preparation and consideration of the written evidence which the RCDSO provided in January 2013, a scoping meeting with the President and Registrar in London on 1-2 February, the Review Team working at the College in Toronto between 14-17 April 2013 and a further meeting with the President and Registrar on 2-3 May 2013. During this period we:

- reviewed substantial documentary evidence provided by the RCDSO

[3] See footnote 2.

- examined a limited sample of case files, which included reasons, outcomes and records of investigation
- reviewed documentation relating to the development of guidance and standards
- read a sample of minutes of Council, Executive Committee and other statutory committees including the Quality Assurance Committee and the Patient Relations Committee
- observed a meeting of a panel of the Inquiries, Complaints and Reports Committee
- met with members of the Executive Committee and public members of Council
- met with the Registrar and individually with senior members of staff
- met with the President
- met with external stakeholders of the RCDSO.

2.6 The names of the individuals we met and spoke with appear in section 10.

2.7 We consider that the information which we have been given, the examination of the RCDSO's work in practice and our discussions with its Council members, President, Registrar and staff have enabled us to come to a fair assessment of its performance against the standards of good regulation.

2.8 We have set out our approach to effective regulation in our paper *Right-touch regulation*[4]. Right-touch regulation means using only the regulatory force necessary to achieve the desired effect. It sees regulation as only one of many tools for ensuring safety and quality and therefore that it must be used judiciously. Professional regulation exists not to promote or protect the interests of professional groups but to enhance patient safety and protect the public. The general approach to regulation set out in that paper underlies our standards of good regulation and our judgement about the performance of the RCDSO.

[4] Council for Healthcare Regulatory Excellence, August 2010. *Right-touch regulation.*

3. Executive summary

3.1 The Royal College of Dental Surgeons of Ontario is an effective regulator. It is strongly focussed on patient safety and the public interest. It meets or exceeds all of the standards of good regulation, as adapted for this review.

3.2 In this report we identify a number of areas of good practice. We commend the College for its efforts in these areas and for its responsiveness to recommendations from ourselves and others. In particular the College demonstrates agility in its reaction to developments in clinical practice and risk, and a strong focus on public protection. The high quality of its advice and guidance to dentists is widely recognised.

3.3 As well as recognising good practice we also make 11 recommendations on matters where we consider the College could improve the way it works. These recommendations appear in the relevant sections of the report and are summarised in section 8, below.

3.4 In section 4 of this report we set out some of the key features of the Ontario model of regulation and the legislation underpinning it.

3.5 In sections 5-8 we set out the standards of good regulation, as amended for the Ontario model. We state the standard and describe the evidence we have considered in coming to the view that the standard is met. We also highlight areas of good practice which other regulators may wish to note, and any recommendations arising from our analysis and discussion of the evidence.

3.6 The framework for health professional regulation in Ontario is set out in the Regulated Health Professions Act (RHPA) 1991, which sets out a list of 'controlled acts', which may only be performed by regulated health professionals. Each regulated profession also has its own legislation, which sets out the scope of practice and which of the controlled acts may be performed by members of that profession and how. Regulated health professionals may also delegate the performance of a controlled act within their own scope of practice to another person.

3.7 The regulation of each profession is conducted by a college. The membership, powers, committees and processes of a college are set out in legislation. There are a significant number of other pieces of legislation and regulations with which the regulatory colleges must comply, including but not limited to the Canada Agreement on Internal Trade 1995 and the Ontario Freedom of Information and Protection of Privacy Act 1990. We are confident that the RCDSO is fully aware of and compliant with the complex legislation within which it operates.

3.8 Professional regulation is overseen to some extent by three other bodies; the Health Professions Regulatory Advisory Council, which advises the Minister on new groups to be regulated and on other matters, the Health Professions Appeal and Review Board, which conducts reviews and hearings of appeals about registration and complaints, and the Office of the Fairness Commissioner which promotes fairness in the registration of health professionals.

3.9 Professional regulators in all jurisdictions work within more or less complex legal frameworks. There is an inherent tension between these and the needs of a global economy for the free movement of labour and the protection of quality and public safety.

3.10 This review examined the RCDSO's approach to and compliance with 23 standards of good regulation covering three regulatory functions; the setting of guidance and standards, registration and complaints.

3.11 The RCDSO meets all the standards in relation to the development of guidance and standards for dentists and demonstrates good practice in this area of its work.

3.12 The process for identifying new areas of practice that need attention or existing areas that need revision is robust. The College draws on the best possible advice and makes sure a wide range of expertise is engaged. It has strong internal quality assurance and makes sure that standards and guidance when finalised are widely published and accessible.

3.13 We consider that the College could do more to engage patients and the public with the development of standards and guidance.

3.14 In order to be registered by the RCDSO it is necessary to pass the exam of the National Dental Examining Board (NDEB). There are different routes to eligibility to take the exam. Canada, and through reciprocal agreements, the United States, Australia, New Zealand and Ireland, operate according to a system of mutual recognition of accreditation of dental training.

3.15 Dentists who have not qualified in Canada or in countries covered by the reciprocal agreements may apply through the NDEB equivalency process and must pass the NDEB exam, a necessary precursor to registration by the College.

3.16 The information provided to potential applicants for registration is comprehensive and clear. The registration process is fair and effective.

3.17 The register is informative, accessible to anybody and easily searchable.

3.18 The College is committed to ensuring equal access. We think it could build on its strengths in this area by further work to enable dentists with disabilities to practise safely.

3.19 We consider that the RCDSO meets all the standards in relation to the registration of dentists and demonstrates good practice in some areas of this function.

3.20 The complaints process that the RCDSO must follow is prescribed in the Health Professions Procedural Code which is Schedule 2 of the Regulated Health Professions Act. The complaints and reports process has many stages and numerous options and internal checks and balances. We have set this out diagrammatically in a complaints and reports flowchart in section 12 of this report.

3.21 There is no doubt that the College is committed to patient safety and that it meets all the standards for handling complaints. However we have some comments on it achieving greater efficiency in this area.

3.22 The College is required to investigate every complaint that it receives. Of the 362 decisions issued in 2011 on complaints, we note that in only three cases was a referral to the Discipline Committee necessary. In six cases a Specified Continuing Education or Remediation Programme (SCERP)was ordered; in 41 cases an oral caution was delivered; a further 41 cases were ratification of the outcome of an ADR process; and in 56 cases the decision was agreement to no further action following satisfactory completion of at least two years of monitoring following a remedial course. The remaining 220 decisions, or 61 per cent, were complaints which resulted in no further action.

3.23 We consider this legislative requirement to be inherently inefficient and time-consuming. We also note that the legislation sets an entirely unrealistic target of 150 days for the conclusion of cases. In relation to the very small number of cases that proceed to the Discipline Committee the median time taken according to 2011 statistics is 570.5 days. For the larger number of cases which are concluded by the Inquiries, Complaints and Reports Committee the median time taken is 315 days.

3.24 Within the limits of its legislation we think the College should review its administrative processes in the handling of complaints to identify if the process could be expedited to achieve a swifter and more efficient resolution.

3.25 We found the College to be active and outward looking in its engagement with other regulators, professional bodies, universities, statutory organisations, government and international organisations.

3.26 The College has a clear commitment to continuing professional development. The new Quality Assurance Programme was launched in December 2011. It is backed up by an on-line self-assessment programme which is a requirement of all dentists and is designed to ensure dentists remain up to date in their practice.

3.27 The engagement of public members in the work of the College is a great strength. Public members are valued, respected, and supported and play important roles in the College's work.

3.28 The College has strong and effective communications and its website is outstandingly good.

3.29 We have made a number of recommendations to the College in this report which centre on its internal processes and its engagement of patients and the public in its work. Overall, given some constraints of the regulatory framework in Ontario, the RCDSO is a good regulator with a clear commitment to public safety and meets all the standards of good regulation.

4. The role of the Royal College of Dental Surgeons of Ontario and the regulatory context in Canada

4.1 The Royal College of Dental Surgeons of Ontario is the regulator of dentists in the province. There are some 9,000 members (or registrants) of the College, working in a province which has a population of 13.5 million. The regulatory system of which the RCDSO is part has been of considerable interest to regulators internationally and in this chapter we set out some its key features. The description that follows is intended to be general to all professions, and is not intended as a specific description or commentary on the RCDSO.

4.2 The Regulated Health Professions Act (RHPA) 1991 establishes the legal framework for the regulation of health professionals in Ontario. There is also a profession-specific act for each of the regulated professions. Other acts with which Colleges must comply are set out below at paragraph 4.10.

4.3 Schedule 1 of the Act, *Self Governing Health Professions*, sets out the statutorily regulated health professions in Ontario: audiology and speech-language pathology; chiropody; chiropractic; dental hygiene; dental technology; dentistry; denturism; dietetics; homeopathy; kinesiology; massage therapy; medical laboratory technology; medical radiation technology; medicine; midwifery; naturopathy; nursing; occupational therapy; opticianry; optometry; pharmacy; physiotherapy; psychology; psychotherapy; respiratory therapy; and traditional Chinese medicine.

4.4 The RHPA sets out a list of 'controlled acts'. A fundamental feature of the legislation is that only regulated health professionals can perform a controlled act. The profession-specific legislation sets out the scope of practice, and which of the controlled acts may be performed by members of that profession, and how: the authorised acts. Regulated health professionals may also delegate the performance of a controlled act within their own scope of practice to another person.

4.5 For illustration, Table 1 below sets out the full list of controlled acts from the RHPA, and the scope of practice and list of authorised acts for dentists as defined in the Dentistry Act 1991.

Table 1: Controlled acts, scope of practice and authorised acts

Controlled acts (RHPA 1991)	Scope of practice for dentists (Dentistry Act 1991)	Authorised acts for dentists (Dentistry Act 1991)
1. Communicating to the individual or his or her personal representative a diagnosis identifying a disease or disorder as the cause of symptoms of the individual in circumstances in which it is reasonably foreseeable that the individual or his or her personal representative will rely on the diagnosis 2. Performing a procedure on tissue below the dermis, below the surface of a mucous membrane, in or below the surface of the cornea, or in or below the surfaces of the teeth, including the scaling of teeth 3. Setting or casting a fracture of a bone or a dislocation of a joint 4. Moving the joints of the spine beyond the individual's usual physiological range of motion using a fast, low amplitude thrust 5. Administering a substance by injection or inhalation 6. Putting an instrument, hand, or finger i. beyond the external ear canal ii. beyond the point in the nasal passages where they normally narrow iii. beyond the larynx iv. beyond the opening of the urethra v. beyond the labia majora vi. beyond the anal verge vii. into an artificial opening into the body	The practice of dentistry is the assessment of the physical condition of the oral-facial complex and the diagnosis, treatment and prevention of any disease, disorder or dysfunction of the oral-facial complex	In the course of engaging in the practice of dentistry, a member is authorised, subject to the terms, conditions and limitations imposed on his or her certificate of registration, to perform the following: 1. Communicating a diagnosis identifying a disease or disorder of the oral-facial complex as the cause of a person's symptoms 2. Performing a procedure on the tissue of the oral-facial complex below the dermis, below the surface of the mucous membrane or in or below the surfaces of the teeth, including the scaling of teeth 3. Harvesting tissue for the purpose of surgery on the oral-facial complex 4. Setting a fracture of a bone of the oral-facial complex or setting a dislocation of a joint of the oral-facial complex 5. Administering a substance by injection or inhalation 6. Applying or ordering the application of a prescribed form of energy 7. Prescribing, dispensing or compounding a drug 8. Selling a drug in accordance with the regulations

7. Applying or ordering the application of a form of energy prescribed by the regulations under this Act 8. Prescribing, dispensing, selling or compounding a drug as defined in the Drug and Pharmacies Regulation Act, or supervising the part of a pharmacy where such drugs are kept 9. Prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eye glasses other than simple magnifiers 10. Prescribing a hearing aid for a hearing impaired person 11. Fitting or dispensing a dental prosthesis, orthodontic or periodontal appliance or a device used inside the mouth to protect teeth from abnormal functioning 12. Managing a labour or conducting the delivery of a baby 13. Allergy challenge testing of a kind in which a positive result of the test is a significant allergic response		9. Fitting or dispensing a dental prosthesis, or an orthodontic or periodontal appliance or a device used inside the mouth to protect teeth from abnormal functioning

4.6 Each of the statutorily regulated professions is regulated by a college. A college has a duty 'to work in consultation with the Minister to ensure, as a matter of public interest, that the people of Ontario have access to adequate numbers of qualified, skilled and competent regulated health professionals'; and, 'in carrying out its objects, the college has a duty to serve and protect the public interest'. Colleges have a common set of objectives, set out in Schedule 2 to the Act, the *Health Professions Procedural Code*:

- to regulate the practice of the profession
- to develop, establish and maintain standards of qualification for persons to be issued certificates of registration
- to develop, establish, and maintain programmes and standards of practice to assure the quality of the practice of the profession

- to develop, establish and maintain standards of knowledge and skill and programmes to promote continuing evaluation, competence and improvement among the members
- to develop, in collaboration and consultation with other colleges, standards of knowledge, skill and judgement relating to the performance of controlled acts common among health professions to enhance interprofessional collaboration, while respecting the unique character of individual health professions and their members
- to develop, establish and maintain standards of professional ethics for members
- to develop, establish and maintain programmes to assist individual to exercise their rights under this Code and the Regulated Health Professions Act, 1991
- to administer the health profession Act, this Code and the Regulated Health Professions Act, 1991 as it relates to the profession and to perform the other duties and exercise the other powers that are imposed or conferred on the College
- to promote and enhance relations between the college and its members, other health profession colleges, key stakeholders, and the public
- to promote inter-professional collaboration with other health profession colleges
- to develop, establish and maintain standards and programmes to promote the ability of members to respond to changes in practice environments, advances in technology and other emerging issues
- any other object relating to human health care that the Council considers desirable.

4.7 The powers, committee structures, committee responsibilities, and statutory procedures of a college are also set out in Schedule 2 to the Act, the *Health Professions Procedural Code.*

4.8 In summary, each of the colleges has a council, 'that shall be its board of directors and shall manage and administer its affairs'. The council has a majority of professional members, who are elected by other college registrants and a minority of public members who are appointed by the Lieutenant Governor in Council[5].

4.9 In addition, colleges have the following statutory committees:

- executive committee: can exercise the powers of council between council meetings
- registration committee: considers registration applications referred to it by the registrar, where there are doubts as to whether registration requirements are met or where there may be a need to impose terms, conditions or limitations on registration

[5] The constitution of the RCDSO's Council is set out at paragraph 8.7.

- inquiries, complaints and reports committee: meets in panels of three to investigate complaints that have been filed with the registrar about a registrant of the college[6]
- discipline committee: responsible for hearing and determining allegations of professional misconduct or incompetence referred to it by the ICRC.
- fitness to practise committee: considers cases referred to it by a panel of the ICRC, where there are grounds to believe that the member is physically or mentally incapacitated, ie on health grounds
- patient relations committee: considers measures for preventing or dealing with sexual abuse of patients.
- quality assurance committee: development, review and evaluation of the college's quality assurance programme (this programme is designed to ensure that the knowledge, skill and judgement of registrants remains current throughout their careers)

Other relevant legislation

4.10 The colleges must also comply with other acts, including in particular:

- the Ontario Business Corporations Act 1990 which sets out the legal requirements for corporate functions
- the Canada Agreement on Internal Trade 1995 (http://www.ait-aci.ca/index_en.htm) which provides for free movement of people, goods, services and investment within Canada
- the Ontario Freedom of Information and Protection of Privacy Act 1990 which governs use, storage and accessibility of patient information
- the Canada Competition Act, which governs business conduct in Canada. It contains both criminal and civil provisions aimed at preventing anti-competitive practices in the marketplace.
- the Fair Access to Regulated Professions and Compulsory Trades Act 2006, which is discussed below in the section on the Office of the Fairness Commissioner.
- the Human Rights Act of Ontario

The Health Professions Regulatory Advisory Council

4.11 The Health Professions Regulatory Advisory Council (HPRAC) is established under the Regulated Health Professions Act, and has a statutory duty to advise the Minister on health professions regulatory matters in Ontario. This includes providing advice to the Minister on:

- whether unregulated health professions should be regulated
- whether regulated health professions should no longer be regulated
- amendments to the Regulated Health Professions Act (RHPA)

[6] A detailed account of the RCDSO's specific arrangements for handling complaints is given in section 7 of this report.

- amendments to a health professions' act or a regulation under any of those acts
- matters concerning the quality assurance programmes and patient relations programmes undertaken by health colleges
- any matter the Minister refers to the HPRAC relating to the regulation of the health professions.

4.12 Members of the HPRAC Council are appointed by the Lieutenant Governor in Council. In preparing its advice and preparing its recommendations, HPRAC is independent of the Minister of Health and Long Term Care, the Ministry of Health and Long Term Care, the regulated health colleges, regulated health professional and provider associations, and stakeholders who have an interest in issues on which it provides advice. The Council's website is available here: www.hprac.org

4.13 In the course of our review visit to Toronto we met the Chair of HPRAC, and we are grateful for his insights and broad perspective on regulation.

Health Professions Appeal and Review Board

4.14 The Health Professions Review and Appeal Board is established by the Regulated Health Professions Act. The Board is responsible for conducting complaint and registration reviews and hearings concerning the registration committee and inquiry, complaints and reports committee decisions of the health colleges in Ontario. Members of the Board are appointed by the Lieutenant Governor in Council. Most of the Board's work consists of reviewing decisions of the colleges' inquiries, complaints and reports committees. The Board's jurisdiction enables it to determine the adequacy of the ICRCs' investigations, and the reasonableness of the ICRCs' decisions. The Board also conducts reviews and hearings of orders of the registration committees of the colleges[7]. The Board's website is here: www.hparb.on.ca/scripts/english/

4.15 In the course of our review visit to Toronto we hoped to meet the Chair of the Board. However, on legal advice she declined to meet us. Instead, we had a telephone conference with the Senior Counsel to the Board.

Office of the Fairness Commissioner

4.16 The Office of the Fairness Commissioner assesses the registration practices of regulated professions and trades to make sure they are transparent, objective, impartial and fair for anyone applying to practise his or her profession in Ontario.

4.17 The Office requires the bodies that regulate the professions and trades to review their own registration processes, submit reports about them and implement the commissioner's recommendations for improvement.

4.18 The prime responsibilities of the Office are to:

- advise the regulatory bodies about registration and other issues

[7] The outcome of appeals against the RCDSO's decisions are discussed at paragraphs 6.10 and 7.52.

- set out guidelines for the content and form of the regulatory bodies' reports to the office
- assess registration practices
- advise provincial government ministries about issues relating to the professions and trades in their jurisdictions
- issue compliance orders to the non-health professions and to the trades, if necessary
- report to the Minister of Health and Long-Term Care about a health profession's non-compliance, if necessary[8]
- report to the public and to the Minister of Citizenship and Immigration about its work.

4.19 In addition, the Office:

- monitors labour mobility in Canada
- monitors the activities of certain agencies that assess qualifications
- does research.

4.20 The mandate of the office is set out in the Fair Access to Regulated Professions and Compulsory Trades Act, 2006.

4.21 In the course of our review visit to Toronto we met the Executive Director of the Office of the Fairness Commissioner. We are grateful to her for her lucid account of their role.[9]

4.22 As described above the legislation controlling professional regulation in Ontario is complex, consisting as it does of a series of interlocking and complementary acts, schedules and regulations. The legislation is highly specific in effect so that the RCDSO has very little discretion, if any, in the way it operates. This restrains its ability to be innovative to the extent that it would wish, although we have noted below examples where it has successfully been so.

4.23 We observe that a tension between forward looking regulatory practice and out-dated and over specific legislation is now a common experience for regulators across the globe. In many countries both governments and regulators are looking at regulatory reform so that regulation can be both more effective and less onerous. The ideas of 'smart regulation' or right-touch regulation are gaining ground. The need to give regulators greater flexibility in responding to change and in particular to the globalisation of the health workforce is increasingly recognised. The RCDSO is well placed to make a valuable contribution to this debate.

[8] In the event of serious concerns about non-compliance the Lieutenant Governor in Council has the power under section 5 of the RHPA to appoint a supervisor to a college, on the advice of the Minister of Health

[9] The findings of the OFC's most recent Registration Practices Assessment Report on the RCDSO are summarised at paragraphs 6.13-6.14

5. Guidance and standards

Standards of competence and conduct reflect up-to-date practice and legislation. They prioritise patient and service user safety and patient and service user centred care. Additional guidance helps registrants to apply the regulator's standards of competence and conduct to specialist or specific issues including addressing diverse needs arising from patient and service user centred care.

5.1 The College has published a wide range of standards and guidance documents covering different areas of practice and in different formats. These include, but are not limited to:

- *Standards of Practice for Amalgam Waste Disposal*
- *Standards of Practice for Dental CT Scanners*
- *Standards of Practice for the Use of Sedation and General Anaesthesia in Dental Practice*
- *Guidelines for Conflict of Interest*
- *Guidelines for Dental Recordkeeping*
- *Guidelines for the Diagnosis and Management of Tempromandibular Disorders and Related Musculoskeletal Disorders*
- *Guidelines for Electronic Records Management*
- *Guidelines for Educational Requirements and Professional Responsibilities for Implant Dentistry*
- *Guidelines for Infection Prevention and Control in the Dental Office*
- *Medical History Recordkeeping Guide*
- *Guidelines for Blood Borne Pathogens and Infectious Diseases.*
- *Informed consent: a guide to understanding the consent process in the dental office (DVD)*
- Webinars, including on the use of narcotics

5.2 When a new or revised standard of practice or guideline document has been approved by the Council, it is placed on the College's website and a hard copy is mailed to all registrants, either separately or with the next edition of the college newsletter *Dispatch.*

5.3 The College provided us with an example of how it works to ensure that guidance is reviewed and reissued as necessary, with changes in law and practice. This example was the *Standards of Practice for the use of Sedation and General Anaesthesia in Dental Practice*, which it points out since the RHPA came into force in 1994 it has updated in 1995, 2001, 2005, 2009 and 2012.

5.4 Additionally, we note that the College publishes additional or supplementary guidance through a number of communication channels which include the website, articles in the College newsletter *Dispatch*, 'PEAK' articles (Practice

Enhancement and Knowledge), webinars, quality assurance initiatives including continuing education courses and peer assessment via the Practice Enhancement Tool. PEAK articles appear in the College newsletter *Dispatch* and discuss a clinical or non-clinical topic selected from dental literature around the world and judged to be relevant to dentists in Ontario.

5.5 Because of concerns about the safety of CT scanners when used in dentistry the government of Ontario commissioned the RCDSO to develop standards, guidance and regulations. The College provided us with an example of how, after one specific piece of guidance was published, these channels were used to reinforce its content. The piece of guidance in question was the *Standard of Practice for Dental CT Scanners* which received Council approval in April 2011; the associated by-law codifying the inspection of standards was approved in March 2012. In addition to the publication of the guidance, the College also took the following actions:

- additional guidance through the newsletter Dispatch in May/June 2011, August/September 2011, May/June 2012
- publication of a PEAK article (August/September 2011)
- a webinar (October 2011)
- presentations at the Ontario Dental Association 2012 Annual Spring Meeting and the 2012 Winter Clinic
- the establishment of a Practice Enhancement Tool competency area.

We have seen correspondence from the Ministry of Health and Long Term Care which thanks the College for its 'thorough and comprehensive guideline' which 'demonstrates a strong commitment to protect the public'.

5.6 In preparing the standard and guidance and subsequent regulations the College was firmly directed by its commitment to patient safety and to ensuring the benefits of the clinical innovation of CT scanning in dentistry could be realised without harm to patients.

5.7 The College has a LifeLong Learning Programme that consists of DVD and CD-based interactive learning packages on topics like informed consent, medical and dental emergencies in the dental office, jurisprudence and ethics that are distributed free of charge to all registrants of the College when released. The programme also includes webinars and other educational materials that are made available to registrants at no charge. The College has four dentists on the staff in the Quality Assurance Programme to assist dentists in understanding standards in relation to patients' needs.

5.8 Additionally, the College offers a practice advisory service, which anyone may contact be they registrants or members of the public. The service has dedicated staffing and offers advice on clinical, regulatory and ethical issues. It is important to note that this service is much used by dental patients and the public. We note (in paragraph 5.17 below) how the College might get greater value from these contacts.

5.9 The College has expanded the remit of its statutory Patient Relations Committee, to include, amongst other issues, people with disability, advertising and pain management.

5.10 Taking all of this evidence into account, we are convinced that the College is active in ensuring that the range of guidance and standards that are available to dentists is comprehensive and up to date, that it is active in ensuring that registrants are aware of new guidance as it is produced, and that the College has an active and busy programme of review and monitoring of the relevance of its guidance and standards. We have reviewed a range of the guidance and standards documents and articles, and we are convinced that they prioritise the interests of patients and emphasise patient and service user safety and care. We consider the College's work in this area to be good practice.

In development and revision of guidance and standards, the regulator takes account of stakeholders' views and experiences, external events and developments, international regulation and best practice, and learning from other areas of its work.

5.11 The development and revision of guidance is taken forward by the Quality Assurance Committee, one of the College's statutory committees. The decision to either initiate a new piece of guidance or to review an existing one can be triggered by internal review and monitoring, information from stakeholders including members of the public, complaints or claims. The College's policy is that when such a decision has been taken, the Quality Assurance Committee establishes an expert working group relevant to the subject matter of the guidance, including external expertise. The College provided us with examples of the external organisations from which expert members to such working groups have been appointed (Table 2).

5.12 In recruiting members to working groups, the College seeks to draw on a wide range of expertise and experience including from the academic community. The College has provided us with some examples of members of working groups for specific pieces of guidance set out in Table 2 below.

Table 2 External Organisations on Working Groups

Working Group subject	External organisation on Group
Dental CT scanners	College of Physicians and Surgeons of Ontario College of Medical Radiation Technologists of Ontario Professor in radiology Experts in medical radiation technology
Pain management	College of Physicians and Surgeons of Ontario Ontario College of Pharmacists Head of hospital pain clinic Specialist in oral medicine Representatives from pharmacy, medicine and nursing

Anaesthesia and sedation	College of Physicians and Surgeons of Ontario Specialist in sedation and anaesthesia Representatives from medicine, pharmacy and nursing
Infectious diseases	College of Nurses of Ontario College of Physicians and Surgeons of Ontario A dentist and pathologist A professor expert in design of guidelines for medicine A hepatology professor

5.13 The College's practice is that the working group will produce a draft document for consideration by the Quality Assurance Committee. In turn, the Quality Assurance Committee will present the report for consideration by the Council, in the form of a motion. The College's policy is then that the draft document is circulated for comment to all registrants, is sent to the members of an external stakeholder list, and is placed on the website. 60 days are allowed for the return of comments.

5.14 Following the receipt of comments the working group reconvenes to consider how the document will be amended in the light of these. A redraft is prepared for the Quality Assurance Committee, who again may then submit a draft to the Council in the form of a recommendation. Alternatively, if substantial changes have been made, the redraft is circulated to stakeholders and members again. The Quality Assurance Committee will consider any further changes, and must then submit the draft to Council.

5.15 The College has explained to us that where Regulations are required, these require government approval by Order in Council passed by cabinet and moved by a sponsoring Minister, which become law following royal assent. The College gave us a number of examples including the Amalgam Waste Regulation, which involved an externally commissioned expert study, taking eight months, followed by the College process described above which took seven months, and Government approval which took a further two months.

5.16 The College also provided us with an example of the process being followed for a review of an existing piece of guidance, the *College Guidelines for Educational Requirements and Professional Responsibilities for Implant Dentistry*. We have set this out in Table 3 below.

Table 3

Review of College Guidelines for Educational Requirements and Professional Responsibilities for Implant Dentistry	
Stage	**Key Dates**
Council approval of establishment of a working group	November 2009

Working group convened; working group evaluates current information including guidelines and best practices from Quebec, the United States, the United Kingdom, Europe, Australia and Hong Kong, produces draft document. Draft document submitted to Quality Assurance Committee	
Draft document approved by the Quality Assurance Committee	May 2012
Draft document provisionally approved by Council	June 2012
Draft document posted on College website, sent to registrants and sent to stakeholder list	
Working group reconvened to consider comments (30 submissions made)	
Revised draft document submitted to Quality Assurance Committee	
Revised draft approved by the Quality Assurance Committee	February 2013
Recommendation for final approval to be put to Council by the Quality Assurance Committee	May 2013

5.17 In addition to this example, which the College provided to us in advance, in the course of the visit we discussed the development of the Standards of Practice for Dental CT Scanners with the Manager of Quality Assurance; and we reviewed the files for two such exercises relating to the Standard of Practice for the Use of Sedation and General Anaesthesia in Dental Practice, and the Guidelines for Electronic Records Management. In all cases, we found evidence that the process as described above had been followed, with evidence of consultation having taken place and comments that were made having prompted discussion and redrafting.

5.18 However, there is one area where we believe there is room for improvement, which is the engagement of the public and groups representing patients and the public, in the development and review of standards and guidance. We acknowledge that standards and guidance documents that are subject to consultation are placed on the website and that the working group will consider comments from wherever they originate. We also acknowledge that in the context of specific projects, there has been engagement with relevant people and groups, such as the work on dental healthcare to remote Inuit communities; work on sexual abuse involving two communities and a rape crisis centre; and work with advocacy groups on long term care. However we notice that there is an absence of public, patient and service user groups or members of the public on the College's stakeholder list, and are concerned that potential patient or public commenters would not be aware as a matter of routine of draft documents that had been placed on the website. We understand from discussion with staff that in the past attempts have been

made to engage with such groups but these have been unsuccessful. We recommend that the College reconsiders how it might take more active steps to engage with the public in the development of guidance and standards. We recommend further that the approach taken encompasses both individual members of the public who might be interested to participate in consultation exercises, and patient and public representative groups. To take this forward, the College might wish to consider establishing networks or databases of interested individuals and groups to whom to send consultations on draft guidance and standards documents as they arise. We suggest that to recruit individuals, amongst other means the College might wish to look to its own Professional Practice Advisory Service. We were told that roughly half of calls to the Service are from members of the public. The staff of this service could ask all callers as a matter of course, perhaps at the end of calls, whether in future they would be interested to comment on guidance and standards drafts from time to time. We were also told that interested members of the public regularly observe Council meetings. These people too are potential recruits for consultations. A list of interested individuals could therefore gradually be compiled who could routinely be sent drafts at the same time as other stakeholders on the stakeholder list. We also recommend a renewed approach to public and patient representative groups in Ontario to establish whether they would be interested to comment on future draft guidance so that a more diverse stakeholder list can be compiled. The College has the opportunity to take a lead on this area.

5.19 We are satisfied on the basis of this evidence that the College meets this standard.

The standards and guidance are published in accessible formats. Registrants, potential registrants, patients, service users and members of the public are able to find the standards and guidance published by the regulator and can find out about the action that can be taken if the standards and guidance are not followed.

5.20 The College has set out to us that when a standard of practice or guideline has been approved by the Council the document is sent in hard copy to all registrants, either separately or with the next issue of the College newsletter *Dispatch*. The document is also placed on the College website. The RCDSO Library in the Knowledge Centre on the website includes all current guidance and standards documents, practice advisories and by-laws. We have reviewed the accessibility of documents on the website, and we are extremely impressed by the layout, design and ease of navigation to find documents and other information on it. Members of the public are guided as to how to make a complaint against a dentist, with a series of clearly worded advice and frequently asked questions (we comment further on this in the section of the report on the handling of complaints).

5.21 Therefore we are satisfied that the College meets this standard.

5.22 The production of standards and guidance is a particular strength of the College. We note good practice in not only the quality assurance of standards but also in the selection of new topic and revision of existing ones, and the way in which expertise is assembled.

6. Registration

Only those who meet the relevant requirements will be registered

6.1 The RHPA establishes the duty of the College to provide information to individuals who are applicants for registration with respect to the requirements for registration, the procedures for applying and the amount of time that the registration process usually takes. It also establishes the duty of the College to make information publicly available on what documentation of qualifications must accompany an application, and what alternatives might be acceptable to the College if an applicant cannot obtain the required documentation for reasons beyond his or her control. It sets out a general duty that assessment of an application is transparent, objective, impartial and fair.

6.2 The National Dental Examining Board of Canada (NDEB) has an important role. The NDEB has 12 members; each dental regulatory authority in Canada appoints a member and two members are appointed by the Commission on the Dental Accreditation of Canada, the organisation that accredits dental programmes in Canada. The NDEB sets the national standards of competency for registration, establishes and maintains an examination facility to test that the national standards are met, and issues certificates to dentists who successfully meet this national standard. All applicants for registration must first have passed the NDEB examinations. Canada, and, through reciprocal agreements, the United States, Australia, New Zealand and Ireland, operate according to a system of mutual recognition of accreditation of dental training.

6.3 For applicants who are graduates of dental programmes outside Canada and the countries to which mutual recognition applies, the NDEB sets out clearly on its website its equivalency process, which comprises a series of assessments and if necessary a qualifying/degree completion programme, which then entitles applicants to take the NDEB examination, the necessary precursor to registration. We note that the qualifying/degree completion programme is reported to be both expensive and time consuming.

6.4 The College has informed us that in the context of the Canada Agreement on Internal Trade, and the Fair Access to Regulated Professions and Compulsory Trades Act, it has been instrumental in establishing reciprocal agreements and accreditation for dental programmes within and outside Canada, to ensure that well-qualified dentists are able to practise in Ontario. We understand that this was achieved in large part through its position on the Canadian Dental Regulatory Authorities Federation (CDRAF), of which the President of the RCDSO is currently President, and the Registrar of the RCDSO is Executive Director.

6.5 Within a context of the overriding need to ensure patient safety, there are obvious benefits to workforce mobility from mutual recognition of professional qualifications and internationally recognised standards of competence. Therefore, while we recognise the clarity and quality of the information that is available to international graduates, we recommend that the RCDSO

continues through its leadership of the CDRAF to influence and identify opportunities to expand the range of countries to which mutual recognition applies. This is of course a matter of interest to professional regulators across the world.

6.6 Additional advice for international applicants is contained in the *Career Map for Internationally Trained Dentists*, produced jointly by the College with the Ontario Ministry of Citizenship and Immigration.

6.7 The requirements for applicants for registration are clearly set out on the College's website. This part of the website is very easily accessed from the homepage, and includes the application form, guidance materials including advice on the form in which supporting documentation must be submitted, and frequently asked questions. The website sets out very clearly the different categories of registration and the recognised dental specialties in Ontario.

6.8 Taking all of this evidence into account, we are satisfied that the College meets this standard.

The registration process, including the management of appeals, is fair, based on the regulator's standards, efficient, transparent, secure, and continuously improving

6.9 The RHPA establishes the general duty of the Ontario health colleges to 'provide registration practices that are transparent, objective, impartial and fair'.

6.10 The College has set out for us the process which it follows on receipt of a completed application. The application is a statutory declaration including a photograph that must be signed or sworn by a notary public or lawyer. An applicant must provide notarised or original documentation. A member of staff first checks the application against a checklist of legislated requirements. A Supervisor or Manager does a final approval and sign-off. Any outstanding questions are reviewed by the Registrar and ultimately can be reviewed by the Registration Committee. If registration is declined, the applicant can appeal to the Health Professions Appeal and Review Board. The College's internally held statistics show that 100 per cent of appeals against its registration decisions are declined by HPARB.

6.11 The process is supported by manual filing and electronic case tracking. The College has told us that completed applications are processed in between three and five weeks, depending on the time of year.

6.12 In ensuring that this process is fair, the Fairness Commissioner has an important role. The functions of the Fairness Commissioner in this regard are to:

- assess the registration practices of a college based on its obligations under this Code and the regulations
- specify audit standards, the scope of audits, times when fair registration practices reports and auditors' reports shall be filed, the form of all required reports and certificates and the information that they must contain

- consult with the colleges on the cost, scope and timing of audits
- advise a college or third parties relied on by a college to assess qualifications with respect to matters related to registration practices under this Code and regulations
- provide advice and recommendations to the Minister, including advice and recommendations that a college do or refrain from doing any action respecting a contravention by a college if the Fairness Commissioner determines that the college has failed to comply with any requirement imposed on it.

6.13 The College submits an annual Fair Registration Practices Report to the Office of the Fairness Commissioner. In the most recent Registration Practices Assessment Report available from the OFC (December 2011), a series of commendable practices are identified, which include:

- the quality of information readily available on the website for both domestic and international applicants
- the quality of information describing classes of registration
- the ease of navigation through the RCDSO and NDEB websites to resources for potential applicants
- the quality of training given to panels
- transparency in decision making
- fairness in the setting of fees.

6.14 The Fairness Commissioner also identified some recommendations, all of which were quickly implemented:

- to provide information in French
- to provide more specific information about timelines for processing applications, and about documentation that applicants must submit
- to identify the steps that can be completed outside Ontario.

6.15 The *Career Map for Internationally Educated Dentists* (paragraph 6.6 above) amply addresses the third of the Commissioner's recommendations, advising potential applicants in the section Before You Arrive in Canada on the resources available on the NDEB website including for self-assessment, the need to obtain a completed Certificate of Good Standing, the ability to apply from anywhere in the world for registration, and the advisability of ensuring adequate French or English language skills.

6.16 With regard to the link between registration and standards, this is established by the RCDSO's input through the NDEB into the Competencies for a Beginning Dental Practitioner in Canada.

6.17 The College's registration practices were audited by Deloitte for the period July 16 2007 to July 15 2008. This audit concluded that the College had 'policies and procedures in place which adequately address the specific requirements of the RHPA', and that 'the registration policies and procedures appear to be fair, transparent and reasonable'.

6.18 Taking all of this evidence into account, we are satisfied that this standard is being met, and in many respects demonstrates good practice.

6.19 We would however like to make a recommendation for future work in this area. We appreciate that much of the focus in recent years has been around ensuring that regulatory practice supports the mobility of dentists around Canada and internationally, and that great progress and improvements have been made in this regard. The College has told us it is committed to enabling people with disabilities to practise safely. An example is its guideline on blood borne pathogens. We also learned of examples of accommodations which the College had made for a dentist who became disabled during their professional career.

6.20 We recommend that a future area of work for the College could be to look at the fairness of its registration practices in relation to people with a disability who wish to practise as dentists. From such a strong starting point the College would be in a good position to demonstrate leadership in ensuring fair treatment of these applicants.

Through the regulator's register, everyone can easily access information about registrants, except in relation to their health, including whether there are restrictions on their practice. Patients, service users and members of the public can find and check a health professional's registration, and are aware of the importance of doing so.

6.21 Schedule 23(1) of the *Health Professions Procedural Code* sets out that the Colleges must maintain a register that includes:

- each member's name, business address, and business telephone number, and, if applicable, the name of every heath profession corporation of which the member is a shareholder
- the name, business address and business telephone number of every health profession corporation
- the names of the shareholders of each health professions corporation who are members of the college
- each member's class of registration and specialist status
- the terms, conditions and limitations that are in effect on each certificate of registration
- a notation of every matter that has been referred by the Inquiries, Complaints and Reports Committee to the Discipline Committee under section 26 and has not been finally resolved, until the matter has been resolved
- the result, including a synopsis of the decision, of every disciplinary and incapacity proceeding, unless a panel of the relevant committee makes no finding with regard to the proceeding

- a notation of every finding of professional negligence or malpractice, which may or may not relate to the member's suitability to practise, made against the member, unless the finding is reversed on appeal
- a notation of every revocation or suspension of a certificate of registration
- a notation of every revocation or suspension of a certificate of authorisation
- information that a panel of the Registration, Discipline or Fitness to Practise Committee specifies shall be included
- where findings of the Discipline Committee are appealed, a notation that they are under appeal, until the appeal is finally disposed of
- where, during or as a result of a proceeding under section 25, a member has resigned and agreed never to practise again in Ontario, a notation of the resignation and agreement
- information that is required to be kept in the register in accordance with the by-laws.

6.22 As noted elsewhere, the College website was renewed in 2012. From the home page, it is extremely easy for anyone to access the register and to check if a dentist is registered or not. We checked the register for annotations including the outcomes from decisions of complaints and disciplinary panels, and found that these were accurately recorded without exception.

6.23 We note that the College does not operate a non-practising register. We support this position, and consider that non-practising registers do little to protect the public, and cause confusion about the purpose of regulation and registration.

6.24 The College is vigorous in ensuring that members renew their registration, including sending out warning letters giving a date of suspension on the grounds of non-payment, a further notice, and contacting members by telephone. This results in only a tiny number of members being suspended for non-renewal each year.

6.25 We note that the RCDSO reimburses universities for the registration fees of retired dentists who continue to teach. We find this an unusual practice on the part of a regulator. If retired dentists are unable to afford the registration fee it is surely for their employers to pay it in their behalf. The reimbursement means that registration for this group is being funded by the other members of the College.

6.26 Taking all of this evidence into account, we are satisfied that the College meets this standard. The design, extent of information and its easy availability on the website represents good practice.

Risk of harm to the public and of damage to public confidence in the profession related to non-registrants using a protected title or undertaking a protected act is managed in a proportionate and risk based manner

6.27 The Dentistry Act 1991 provides that only members of the RCDSO may perform the controlled acts as set out in paragraph 4.5, and use the designation dentist, dental surgeon, or specialist in an area of dentistry.

6.28 The RCDSO acts swiftly to protect the public when a report is made to it that someone is holding themselves out as a dentist when they are not registered. The College employs the services of a retired police officer to undertake an investigation. The investigator will seek treatment from the dentist and sit in the chair, but reveal their identity before any treatment takes place. The investigator will take photographs, and prepares a sworn affidavit. The College will then pursue injunctive relief under the Provincial Offences Act. The College has told us that in recent years it has obtained court orders/ injunctions against 13 individuals, whose names are listed on the College's website (http://www.rcdso.org/PublicProtection/IllegalPractitioners).

6.29 We are satisfied that the College meets this standard, and we commend its vigour and transparency.

6.30 Overall, the college's registration practices are well-managed, transparent, accessible and fair, and demonstrate their commitment to their own values.

7. Handling complaints

Introduction

7.1 The Complaints process is set out in Schedule 2 of the Regulated Health Professions Act, the *Health Professions Procedural Code*. As part of this review we have read the legislation, reviewed a selection of case files, spoken to senior staff in the Professional Conduct and Regulatory Affairs team and attended a panel meeting of the Inquiries, Complaints, and Reports Committee (ICRC).

7.2 The ICRC plays a pivotal role in the consideration of complaints in this and in other Colleges in Ontario. It meets in panels to effect its business. There are in total six such panels, referred to as ICRC (Complaints) of which there are five panels of three members, and the ICRC (Reports) panel of which there is one panel of five members. ICRC(C) panels have two dentist members and one public member. The ICRC (R) panel has three dentist members and two public members.

7.3 The ICRC(C) panels receive the outcome of investigations into complaints, and consider proposed resolution of cases that have been dealt with through ADR (see below). They can decide that no further action is required, ratify or not the proposed resolution of a complaint that has been dealt with through ADR, order the member to attend the panel for an oral caution to be delivered, or order the member to take a specified continuing education or remediation programme (SCERP). They can decide that no further action is required where a remedial course has been completed successfully. They can also refer cases to other committees such as the Discipline Committee (for serious professional misconduct) and the Fitness to Practise Committee (for health matters).

7.4 The ICRC(R) panel was formed in 2009. We understand that the RCDSO is the only College to have set up this panel of an ICRC. It has been established specifically to:

- approve the Registrar's appointment of an investigator, if the Registrar has reasonable and probable grounds to believe that the member has committed an act or acts of professional misconduct or is incompetent
- receive and consider the outcome of investigations that have been commissioned by the Registrar in these circumstances[10]
- take appropriate action on the outcome of investigations (within the same range of options as set out for ICRC(C) above).

7.5 These arrangements are discussed in more detail under each of the standards in this area in the rest of this section of the report. Additionally, we have attempted to map out the main routes that a complaint or report can take through this system which is set out at section 12. We are indebted to the staff of the College who took time to explain the processes to us.

[10] There is full disclosure of the interviews, all of the facts and the member is also given a copy of the investigation report for comment; all of these are given to the panel.

Anybody can make a complaint about a registrant

7.6 THE RCDSO will receive a complaint about one of its registrants from anybody, provided that it is in the format set out in the procedural code of the RHPA; that it is 'in writing, or is recorded on a tape, film, disk, or other medium'. In practice, we understand from discussing the process with staff, that if a complainant has difficulty in submitting a complaint in such a form, staff will go beyond the requirements of the Procedural Code and assist by transcribing the complaint and will then send it to the complainant, to ensure they are content with it before proceeding.

7.7 The College investigates every complaint that is made to it in the required form, and will not, for example, request a complainant to discuss the issue with the dentist before proceeding with a complaint. The public are encouraged to discuss problems with their dentist both on the website and in printed guidance on how to raise a complaint, but once any complaint has been received in the required format, the College will investigate it as is its obligation under the RHPA.

7.8 If a complaint concerns a member of another college, the complainant will usually be directed to the relevant college in writing from the Registrar, copied to the registrar of that college. We commend this practice as an example of collaboration between regulators for the benefit of the public. We understand that the legislation does not allow a direct referral from one registrar or college to another. We think that this would be desirable in the interests of public protection.

7.9 Once a complaint has been received in an appropriate form, it is assessed for any risks to the public that need to be acted on expeditiously and as to whether it could be referred to the Alternative Dispute Resolution process which is provided for in the legislation. We comment on this further at paragraphs 7.18 and 7.19 below.

7.10 We are satisfied that the College meets this standard.

Where necessary, the registrar can initiate an investigation without relying on the receipt of a complaint

7.11 The legislation provides for the Registrar, if he has reasonable and probable grounds, to initiate an investigation without a formal complaint having been filed, and produce a Registrar's report which is considered by the ICRC(R). These powers are set out at Section 75 of the RHPA. The College informs us that on average 40-50 Registrar's investigations are undertaken in a year. There are three possible sources which will initiate such an investigation and report:

- any concerns that come to the attention of the Registrar but not in the form of a formal complaint, such as insurance companies, the public where they do not wish to make a complaint, other dentists, public health units, and the media
- information from the Quality Assurance Committee, in extreme circumstances where the Committee becomes aware of risks to the public arising from a registrant not participating in the Quality Assurance

process, or where a Quality Assurance assessment has revealed significant concerns (we understand that this is rare)

- thirdly, in emergency circumstances where the Registrar believes that the conduct of a member exposes or is likely to expose his or her patients to harm or injury and that immediate investigation is required, and there is insufficient time to seek approval from the ICRC Committee[11].

7.12 We are satisfied that the Registrar has suitable powers to meet this standard and that they are used when necessary. Therefore we consider that the College meets this standard.

The regulator will investigate a complaint, determine if there is a case to answer and take appropriate action including the imposition of sanctions

7.13 Following initial assessment, the case is assigned to an investigator, who will within seven days make a telephone call to the complainant. The investigator as part of this call confirms that it is the wish of the complainant to proceed, and at this point the case is considered 'filed'. This is significant not least because this is the point from which the 150 day target is counted, which is set out in the legislation for the resolution of a complaint.

7.14 Within 14 days of the complaint being filed, the College provides the member with an aide memoire of all previous decisions of statutory committees against them.

7.15 The Registrar can order an emergency investigation where this is warranted by risk to the public being raised in a complaint. If necessary for public protection, the Registrar does not need to wait for the matter to be considered by the ICRC(R) panel . The Registrar will continue a complaint should the complainant disengage from the process, but where there are allegations that require investigation. The Registrar's powers in regard are set out in Paragraph 75(1)(2) of the procedural code.

7.16 As discussed in the introduction to this chapter of the report, the ICRC meets in panels of three or a panel of five. There are currently six panels in total, which meet to a timetable set a year in advance. An ICRC panel meeting is not a hearing – for example, sworn evidence is not taken. Panels have a number of options:

- make a referral of specified allegations of professional misconduct to the discipline committee [12]
- specify a continuing education and remedial programme (SCERP)
- give advice to a member
- deliver an oral caution
- take no further action

[11] We understand that the College has passed in principle a by-law which will give the Registrar authority to post on the public register any deficiency arising out of a facility inspection of a practice where sedation is permitted, or where a dental CT scanner is permitted.
[12] Professional misconduct is defined in regulation 853/93 made under the Dentistry Act 1991

- refer to health inquiry panel (fitness to practise)
- request further investigation.

7.17 After a case is referred to the Discipline Committee, as is the legal obligation of the College there will be further investigation and continuing full disclosure. The next stage is to arrange a pre-hearing conference, in advance of a discipline hearing. The pre-hearing conference is either chaired by a dentist, or co-chaired by a dentist and a retired judge where there are issues of law. The dentist in this role is selected by the Chair of the Discipline Committee and must have had experience as a discipline panel member, must receive training, must not have any connection with the parties, must not have any pre-existing knowledge of the case, must not have sat on any committee dealing with the member's conduct, and cannot sit on the discipline panel dealing with the current referral. The conference is held in private and there is full disclosure. Agreement is reached on many cases at this stage. Where this occurs, an agreed statement of facts is drawn up and there may also be an agreement on penalty. This is then read to a panel of the Discipline Committee, which will make a finding and impose a penalty. Where there is agreement on facts and penalty from the pre-hearing conference it is unusual for the panel to disagree, but it may do so.

7.18 If agreement is not reached at this stage, then the case will proceed to a formal hearing in public before a panel of the Discipline Committee. The panel has five members, of whom three are dentists (both members of Council and non-members) and two are members of the public (both of whom are Council members). Having heard a case, it has a range of options:

- any of the outcomes available to the ICRC (above)
- a reprimand
- suspension for a fixed period
- revocation of registration (erasure)
- award costs.

7.19 In the event of a finding of professional misconduct against a dentist, under the legislation the College will seek costs. While the legislation permits colleges to seek full solicitor and client costs, the courts will only permit this in extreme cases. Instead costs are awarded on a 'partial indemnity' basis. The prosecutor presents a bill of costs containing what would be full indemnity, and asks for partial indemnity, usually about one third less. The College has told us that it usually manages to secure an agreement on costs.

7.20 The RHPA procedural code (at paragraph 25.1) provides for a process of alternative dispute resolution (ADR), instead of a process of investigation followed by consideration by a panel of the ICRC. We understand that the RCDSO was the first College to implement an ADR programme. ADR cannot proceed if an ICRC panel has already referred the case to the Discipline Committee, or if the case involves an allegation of sexual abuse. Also, ADR can only proceed with the agreement of both the registrant and the complainant. If a case is suitable for ADR a facilitator is appointed who

will seek to agree a resolution between the complainant and the registrant, which is then put to a panel of the ICRC for ratification.

7.21 We commend the use of an ADR process as it can facilitate speedy resolution in less serious matters. The College has told us that the mean average timeline for ADR resolution is five months. However, we were struck by the fact that one ADR case we reviewed took 11 months to resolve and that the outcome was that the complainant was refunded a small sum, the cost of treatment, without admission of liability. We believe that the purpose of an ADR process should be to achieve a swift and cost-effective resolution. The purpose of the RCDSO's process is to bring the two parties together to communicate directly and reach an agreed resolution. The College has told us that speed is not a main objective. College staff observed to us that once agreement has been reached with both the complainant and the registrant to embark upon ADR, there could be problems of securing their proper engagement with the process. We recognise that the length of time taken to resolve the case we reviewed may have been extreme, and we are aware of the resources that the College has invested in ADR and that it is seeking the ability to fast track less serious complaints (paragraph 7.38). Nevertheless, we recommend that the College reviews how successfully it is managing ADR, looking at whether the right cases are being dealt with through this process and if there are methods that could be employed to ensure that resolution is reached more quickly. Examples might include to set criteria for when a case will be returned to the non-ADR route if there is a failure on the part of either the complainant or the registrant to engage with the process once it has been explained to them and they have agreed to it; to adhere more strictly to timelines; and to explore approaches such as the use of teleconferences rather than face to face meetings

7.22 Overall, we are satisfied that the College meets this standard.

Information about complaints is shared with other organisations within the relevant legal frameworks

7.23 In 2012, the College entered a Memorandum of Understanding with the other health colleges in Ontario in relation to joint investigations and the sharing of information. The 21 colleges agree to collaborate and share information of complaints and reports investigations as permitted by the RHPA. More widely, we note that inter-professional collaboration was added as an objective in the RHPA in 2009. The College works with other dental regulators in Canada through the Canadian Dental Regulatory Authorities Federation (CDRAF), with other health colleges in Ontario through the Federation of Health Colleges of Ontario (FHRCO), and with the wider regulatory community internationally through the Council on Licensure Enforcement and Regulation (CLEAR).

7.24 The College provided us with evidence in case files of information being shared between colleges, and we are satisfied that it meets this standard.

All complaints are reviewed on receipt and serious cases are prioritised and where appropriate considered for an interim suspension

7.25 The legislation provides for interim suspension (paragraph 37 (1) and (2) of the procedural code). However, this can only occur once a case has been fully investigated; has been discussed by a panel of the ICRC; the panel has decided to refer the matter to the Discipline Committee; and the panel is of the opinion that the 'conduct of the member exposes or is likely to expose his or her patients to harm or injury'. The panel must give notice of its intention to order an interim suspension and must give the detailed reasons with a full opportunity for the member and the complainant to reply. Once a suspension has been rendered, the member has a right of review and appeal to the Court. The College informs us that the courts are reluctant to confirm an interim suspension because it is made without a hearing, without evidence taken under oath.

7.26 Therefore, the College has advised us that it has had greater success in protecting the public by securing voluntary undertakings from registrants for example not to practise a particular modality of dentistry. These terms and conditions are placed on the website.

7.27 Interim suspension orders are an important tool in an effective system of professional regulation. Clearly, the legislation and its operation needs to be fair to registrants, however in this case we feel that the legislative provisions are too protective of registrants' interests and therefore neglectful of patient safety. While we recognise the College's efforts and success in finding a way of protecting patients, and are satisfied that this standard is met, we recommend that in collaboration with other Colleges continues to pursue legislative reform in this area. The point of interim suspension orders is precisely to enable a regulator to take action quickly when public protection is a priority.

The complaints process is transparent, fair, proportionate and focused on public protection

7.28 The College goes beyond the provisions of the RHPA in that it operates with full transparency between the parties to a complaint, with documents that are submitted by one party being shared with the other and comments are invited. The reports of investigations, as well as records, notes, expert input etc are also shared between the parties. The College also notes that:

- members of ICRC panels are canvassed for bias or conflicts of interest in advance of receiving materials on a case
- a panel in considering its decision in a case will choose a remedial approach rather than a punitive one.

7.29 In the course of our discussions both staff and Council members have said to us that the remedial approach is a 'philosophy' that has developed over time. It aims to build a relationship with a dentist over time and to encourage improvement. A remedial course of action will include successful completion of a course, mentoring, monitoring with a direct tie to a statutory committee,

and in many cases restrictions on a dentist's ability to practise certain modalities of dentistry, which is recorded on the register.

7.30 Looking internationally, it could be argued that regulatory styles or philosophies can be placed on a continuum from remedial to directive approaches. While there are strong arguments for a remedial approach where it can be shown that it can address the substance of complaints, it runs the risk of being too protective of the interests of those regulated. We touch on this in discussion of interim suspensions orders, above. We recommend to the College that it is more explicit about evidence and arguments for this being its prevailing approach to handling complaints and in the interests of public protection.

7.31 In our attendance at an ICRC panel meeting we were impressed by the panel's focus on the public interest, and the way in which it sought to be fair. We comment elsewhere on the proportionality of the complaints process (paragraph 7.37), and whether the College's legislation should enable greater latitude and flexibility in the way that it handles some cases. Nevertheless, we consider that the College meets this standard.

Complaints are dealt with as quickly as possible taking into account the complexity and type of case and the conduct of both sides. Delays do not result in harm to patients and service users. Where necessary the regulator protects the public by means of interim suspension.

7.32 The Health Professions Procedural Code, Schedule 2 of the RHPA, states that "a panel shall dispose of a complaint within 150 days after the filing of the complaint" (paragraph 28(1)). It goes on to state that 'if a panel has not disposed of a complaint within 150 days after the complaint was filed, the Registrar shall provide the complainant with written notice of that fact and an expected date of disposition which shall be no more than 60 days from the date of the written notice' [13](paragraph 28(3)). In the event of further delay, it states that the Registrar shall:

'(a) provide the member and complainant with written notice and reasons for the delay and the new expected date of disposition which shall be no more than 30 days from the date of the revised notice or from the expected date of disposition described in subsection (3), whichever is sooner; and

(b) provide the Board with written notice of and reasons for the delay as were provided to the member and complainant" (Paragraph 28 (a) and (b))'.

7.33 On receipt of the application, the Board (the Health Professions Appeal and Review Board) has three options. It may:

- direct the Inquiries, Complaints and Reports Committee to continue the investigation
- make recommendations the Board considers appropriate to the Inquiries, Complaints and Reports Committee

[13] We understand that this was extended from 120 days in 2009.

- investigate the complaint and make an order under subsection (9) within 120 days of the decision to investigate the complaint

7.34 Subsection (9) in turn provides that 'after an investigation, the Board may do any one or more of the following:

- refer the matter to the Inquiries, Complaints and Reports Committee
- make recommendations the Board considers appropriate to the Inquiries, Complaints and Reports Committee
- require the Inquiries, Complaints and Reports Committee or a panel to do anything the Committee or a panel may do under the health profession Act [ie, the RHPA] and this Code except to request the Registrar to conduct an investigation.

7.35 Staff informed us that the College does not wait for, for example, the outcome of police proceedings against a registrant, but will initiate a parallel process.

7.36 We applaud the College's transparency in sharing with us performance statistics from 2011 with regard to the length of time taken in practice to dispose of a complaint. These show the following times from filing of initial complaint to decision by a panel of the ICRC:

Median time taken to conclude	45 weeks	315 days
Slowest case to conclude	103 weeks	721 days
Quickest case to conclude	8 weeks	56 days

7.37 The College also shared with us statistics on cases which are referred to the Discipline Committee:

Median time taken to conclude	81.5 weeks	570.5 days
Slowest case to conclude	124 weeks	868 days
Quickest case to conclude	41 weeks	287 days

7.38 The College is of course aware that the time being taken to conclude cases is considerably in excess of the 150 day target set out in the legislation, and, jointly with other Colleges, has made a submission to Government to seek legislative change to allow for greater discretion in the way that complaints are investigated. Under the existing legislation, all complaints that are filed (except for those which are referred to ADR) are subject to the same standards of thorough investigation. We commend this initiative and recommend that the College continues to pursue this change, possibly with a view to gaining powers to operate triage of complaints in some form at the initial stage. The 150 day legislative target is in practice unworkable and the legislation in this regard is not fit for purpose.

7.39 The statistics on complaints that were published in the most recent annual report that was available (2011) certainly suggest an inherent inefficiency in that the College is processing, a large number of low-level complaints for which it is not appropriate for it take any regulatory action:

Number of decisions issued (by an ICRC panel) (Some decisions contain more than one action eg SCERP and caution. Accordingly, the total number of decisions will not	362

always equal the total number of actions)	
No further action	276 (76%)
No further action (ratification of alternative dispute resolution)	41 (11%)
Oral caution	41 (11%)
Specified continuing education or remediation programme (SCERP)	6 (2%)
Referral to Discipline Committee	3 (1%)
Referral for incapacity proceedings	0

7.40 The College also cites other factors which contribute to the length of time taken to resolve cases: including the complexity of investigations and the practice of full disclosure to the complainant and member with opportunities to comment including on expert opinions. The College also notes that it has put extra resources into the process and that it has not received any negative feedback from the Health Professions Appeal and Review Board on the timeliness of its complaints handling. The College also assures us believes that the length of time being taken to resolve complaints has not resulted in any risk to patients.

7.41 While acknowledging these points, we have a number of observations about the way that cases are handled which we recommend that the College considers. The first concerns the disclosure of documents between complainant and dentist. In a file that we reviewed, we saw that the process of exchanging statements made by the other party resulted in extremely protracted exchanges of correspondence which resulted, it seemed to us, in little progress in the resolution of the grounds of the complaint. This is an example of where the legal obligation for full disclosure limits the regulator's ability to work efficiently.

7.42 We attended a panel of the ICRC discussing a case. Panels are supported by a Reason Writer who records the decisions of the panel, and in the panel meeting, asks questions of the panel to ensure that they have a joint understanding of the facts of the case. However, we noted that a great deal of time was spent by the panel simply putting together the facts of the case under discussion, and establishing the sequence of events at a basic level. We were surprised that the staff team or the investigator did not put together for the panel a paper setting out the facts of the case and a chronology of events. We were told that the College is clear that in its understanding that this is the panel's task. Nevertheless, we felt that a considerable amount of panel time could have been better spent, if staff were empowered to do more preparation of the framework of the case in advance

7.43 The College has set out for us the cases which establish the role of the statutory committee as opposed to the staff of the college, including Khan v. the College of Physicians and Surgeons of Ontario (CPSO) (1992), quoting the court's view that 'if the reasons presented for the decision are not those of the decision maker, or do not appear to be so, it raises real concerns about the validity of the decision and the genuineness of the entire enquiry',

and that further 'where the decision maker is compelled to consult with others, or not charged with the responsibility of the siding of the case, the appearance of independence may be lost'. The College argues that in the light of this decision, and others, for staff to provide an overview or summary of the case could involve staff too closely in the decision making process. Also, we acknowledge that in his book *A Complete Guide to the Regulated Health Professions Act*, Richard Steinecke states that 'the Health Professions Appeal and Review Board has expressed concern where an ICRC relies too much upon a staff investigator's summary of the information rather than reviewing the information itself'[14].In this regard the approach in Ontario differs significantly from some other legislative frameworks and limits the ability of the regulator to deal with cases efficiently. Therefore, while we recognise the legal limitations that are at play, we recommend that College works in conjunction with other Colleges in Ontario to explore whether there are ways that the staff could be more supportive to panels within the limits established by the law.

7.44 We also note that the panel cannot formally consider an interim suspension order until it reaches a final conclusion, after the registrant has had an opportunity to attend and state their case. This is a risk to public protection as, should an interim suspension order be necessary, its implementation is delayed for several weeks.

7.45 We are aware that these are observations from a relatively short and selective observation of the complaints process in action. However, certain aspects of the complaints process appear to us to be inherently inefficient, as we have discussed above. This is no reflection on the dedication, commitment and skills of staff who are managing the process within the legal parameters. Nevertheless, we think there would also be value in the College reviewing its administrative processes for handling complaints. Such a review could bring in external expertise in process or operations management, and could seek to identify whether there are ways that key points in the process could be expedited within the limits placed on the College by its legislation and thus contribute towards the achievement of swifter and more efficient resolution of complaints[15].

7.46 Finally, against this standard, we recommend that the College reviews how it presents the 150 day target in its letters, to ensure that this does not create any artificial expectations about the realistic timescale for the case, but also is clear about the point at which the 150 days starts and ends. We also observed, in a letter to a member informing him that a complaint had been filed against him, that there was scope for confusion in reference to the 150 day target set out in the legislation – the letter did not make it clear from what point the 150 days was intended to start and the letter was dated some months after the filing of the complaint.

7.47 Despite these recommendations, according to RCDSO's current practice we are satisfied that it meets this standard.

[14] Steinecke, R *A Complete Guide to the Regulated Health Professions Act* chapter 5, page 48.
[15] By 'process or operations management' we are not referring to legal process, but to expertise in the allocation of resources to identify the most efficient achievement of desired outcomes.

All parties to a complaint are kept updated on the progress of their case and supported to participate effectively in the process

7.48 We are satisfied that this standard is being met. The College has provided its template letters, of which there are more than 100, and points out that the steps it takes in the course of a complaint include:

- complainant provided with written notice of expected timelines and copy of the relevant portions of the legislation regarding timelines and the remedies for delay (see comments on timelines at 7.28-7.47)
- all parties are regularly updated
- all correspondence is exchanged between parties with opportunity to respond
- parties are provided with mailing address, telephone number and email address of the investigator
- expert reports are shared
- accommodation for people with disabilities is provided
- the College will translate documents
- in the course of our review of case files we noted that these steps were being followed.

7.49 We are satisfied that the College meets this standard.

All decisions, at every stage of the process, are well reasoned, consistent, protect the public and maintain confidence in the profession

7.50 We acknowledge the lengths to which the College goes to ensure that this standard is being met. These including training for panel members; reminders of the need to avoid bias in decision making; and the requirement for all decisions to be written in a template format; and rigorous and on-going training for Discipline Committee members. Reason writers are employed to record panel's decisions, who work entirely at the direction of the panel and do not participate in the decision.

7.51 Decisions can be appealed, within statutory deadlines, to the Health Profession Appeal and Review Board, either by the complainant or the member. The HPARB's decisions are available on the website of the Canadian Legal Information Institute: www.canlii.org/en.

7.52 The College has provided us with statistics that during the years 2009, 2010 and 2011, the HPARB issued 219 decisions with respect appeals against College ICRC panel decisions. Of the 219, in 201 the College's decision was upheld; four appeals against decisions to caution the member were upheld and the decision was overturned; HPARB requested supplementary investigation in 14 other decisions.

7.53 We reviewed the availability of information about appeals available on the HPARB's website and through to the Can Lii website. We found this information difficult to locate, and were disappointed that there was no easily

read, comparative data about appeals against the decisions of different colleges.

7.54 We spoke to Senior Counsel for the HPARB, who described the Board's processes to us, but said that he felt it would be 'inappropriate' to comment on the RCDSO.

7.55 We also reviewed decisions in a number of case files. In general we found that decisions were appropriate and well-reasoned. However, in one discipline case that we reviewed, the dentist was found to have made false claims for payment for work not carried out or carried out unnecessarily, this affecting 45 patients over four years. She had also failed to keep proper records. She had previously entered into voluntary undertakings and accepted monitoring of her practice. She received a six month suspension, a reprimand and conditions. While recognising the professional gravity of being unable to work for six months, nevertheless we were very surprised that given the agreed facts of the case her registration was not revoked. The reasons given did not explore why the sanction was the appropriate one, and other sanctions were not. The RCDSO has set out to us that in Ontario law, except in cases of sexual impropriety or drug abuse, a court will not support a revocation at a first disciplinary hearing. This significantly limits the discretion of the regulator and appears to us to place the interests of the registrant before that of their patients. The College has also provided evidence to us of the force of a joint submission by both parties, following discussion and testing of options at the pre-hearing conference. It has also observed to us that the member is being monitored and reports are being made to the ICRC (R) panel. Therefore, the College considers that this sanction was appropriate and that the monitoring in place is satisfactory.

7.56 We also think this case touches on the issues that we have discussed above about the risks of a remedial approach. While the public are supportive of more remedial approaches, research that we have conducted recently in the UK suggests that this is only where they are confident that they are being protected and that the process is transparent. We are concerned that a remedial approach risks failing to uphold the standards of the profession and the public's trust[16], if someone who has caused harm through unnecessary work on patients and who has been serially dishonest is able to continue practising.

7.57 The College has set out to us that the process for advising panels on the range of sanctions that would be applicable in any given case is that the panel is provided with oral advice on the range of sanctions that are available and might be appropriate. However, as we have noted above, a joint submission by both parties following the pre-hearing conference has considerable force within the Ontario legal system, and relieves the panel of the responsibility of providing detailed reasons. In the case that we reviewed, we found the lack of reasons unsatisfactory. Therefore, in addition to the ways in which the College already seeks to ensure consistency in decision making, and the ways that the wider regulatory system contributes

[16] The purposes of professional regulatory processes are generally held to be to protect the public, to uphold standards of practice and behaviour and to ensure public confidence in regulation.

to this, we recommend that the College reviews the way in which panels record and explain their decisions on the appropriate penalty or sanction in any given case, to ensure that these are achieving the greatest possible consistency and transparency in decision making. Panels should set out not only why they have chosen a specific penalty or sanction, taking into account the advice that is provided to them and the unique features of each case, but also why they have not chosen others. Thorough discussion of the different available sanctions also gives panels a means to ensure that all relevant issues have been addressed

7.58 These points notwithstanding, we are satisfied that the College meets this standard.

All final decisions, apart from matters relating to the health of a professional, are published and communicated to relevant stakeholders

7.59 The College goes to considerable lengths to ensure that final decisions are published and transparent. The information that is made available to the public and posted on the College's website is set out in section 23 of the procedural code of the RHPA and includes any terms, conditions and limitations in effect on a member's certificate; a notation of every matter that has been referred to the Discipline Committee which has not yet been finally resolved; the results, including a synopsis of the decision of every disciplinary and incapacity proceeding, unless there is no finding; a notation of every finding of professional negligence or malpractice, which may or may not relate to a member's suitability to practise, unless the finding is reversed on appeal; a notation of every revocation or suspension; any additional information that a panel of the Registration, Discipline or Fitness to Practise Committee specifies shall be included; a notation of the fact that a member has resigned during or as a result of a complaints or reports process and agrees never again to practise in Ontario.

7.60 The College has also agreed a provision in By-Law 7, which make the following items available on the College's website: any information that the member and the college agree should be included in the register (such as information about a voluntary undertaking or agreement); information about interim orders in effect, such as the fact of the order, the nature of the order and the effective date; where an allegation of professional misconduct or incompetence has been referred to the discipline committee and not yet disposed of, a brief summary of each specified allegation and the anticipated hearing date, if set; a notation of the fact of a referral of the question of a member's capacity to the Fitness to Practise Committee, if not yet disposed of; a notation of an agreement to resign during or in order to avoid a proceedings before the Discipline or Fitness to Practise Committee; a summary of any existing restriction on a members right to practise that has resulted from an undertaking, an agreement, or has been imposed by a court or lawful authority. A proposed by-law is under consideration to place on the register deficiencies in relation to facility inspections for CT scans and for anaesthesia. Consideration is also being given to including SCERPs and cautions.

7.61 In addition:

- decisions of the Discipline Committee where there has been a finding of professional misconduct are available to the public
- summaries of decisions, including the registrant's name and address, are published in the College Dispatch newsletter, and are referenced in the College's annual report, which is sent to Government
- if there is a discipline hearing without a finding of professional misconduct, the decision will still be published, but without the name and address of the registrant
- the full text of discipline decisions and reasons are available to anyone on request (with patient names removed to protect privacy)
- discipline hearings are open to the public. If a reprimand is ordered as part of the penalty in a discipline hearing, the reprimand is administered on the record and as part of the open hearing.

7.62 In June 2012, the College Council approved a policy whereby in cases where there is a finding of professional misconduct and the panel has a concern about the health of patients based on evidence presented at a hearing (patients who may not be aware that proceedings are taking place), the panel may give a direction to the Registrar to communicate the Discipline Committee decision to those patients.

7.63 We have reviewed the College website to ensure that information is available as stated. We found the website easy to navigate, and the register easy to search. We found information available about members as described. Therefore we are convinced that the College meets this standard, and is demonstrating good practice.

Information about complaints is securely retained.

7.64 The College has told us that it takes the following measures to ensure that information about complaints is securely retained:

- complaints files are kept on a secure floor, accessible only by security card. The College also employs a full time security guard to monitor guest traffic throughout the building
- college meeting rooms are located on a separate floor, where no files are stored
- the College's electronic case management system is maintained on a secure network with appropriate firewalls and is monitored by the IT department regularly
- in the event of an appeal, an encrypted electronic copy of the complaint file is sent to the Health Professions Appeal and Review Board using a password
- patient records are always sent to parties by courier and not by mail.
- where a record of investigation contains private health information regarding a patient, and where the patient does not consent to the

disclosure of such information, that information is redacted and not provided to the other party

- in the event of a 'minor' breach of patient information the College contacts the recipient of the information immediately and asks for the return of such information and confirmation that no copies have been made. Breaches of this nature are extremely rare and the College acts immediately and transparently to remedy the error
- the college works in concert with the Office of the Privacy Commissioner to ensure that private health information is dealt with in an appropriate way
- the college also works in concert with the Office of the Privacy Commissioner to secure patient records when they are abandoned by a member of former member of the College.

7.65 The College reports that in the past 15 years only once have they been unable to locate a complaint file. They have also provided an example to us of handling patient records confidentially when on two occasions they became custodians of hundreds of abandoned patient records from closed dental practices and bore the expense of transferring the records by courier either directly to the patient or to their new dentist. There has never been a referral to the Privacy Commissioner.

7.66 On the basis of this evidence, we are satisfied that the College meets this standard.

8. Other standards

The regulator communicates effectively with members, associations, Government and other stakeholders

8.1 We have commented elsewhere in the report on the College website as a key means of communicating with the public, members, and other stakeholders. The website was renewed in 2012, and is an excellent resource, clear, comprehensive and easily navigable. We strongly commend the design of the website to regulators and others.

8.2 We also commend the regulator's success in corporate branding. The College's identity and brand run clearly throughout all of its documents and other publications.

8.3 We have commented elsewhere on the importance of the College newsletter *Dispatch* as a vehicle for guidance and standards for registrants. We have also noted the College's practice of including all members in the consultation on guidance and standards; its routine consultation with stakeholders as part of this process; and its involvement of external experts in the working group convened to develop or review standards and guidance. These stakeholders include all health regulatory colleges in Ontario, all dental regulators in Canada, dental faculties in Canada, provincial and national dental associations and Government agencies.

8.4 We note that the College is an active member of the Federation of Regulatory Colleges of Ontario. We have commented on the joint working that the College is pursuing, with other Colleges, to seek amendments of certain aspects of the RHPA. We also note that the College is an active member of the Canadian Dental Regulatory Authorities Federation and that the President of the RCDSO is also the President of the CDRAF, and that the Registrar of RCDSO is also the Executive Director of the CDRAF.

8.5 The College has also informed us of the following activity:

- the Registrar meets regularly with the Director of Policy of the Government and with the assistant Deputy Minister
- the Registrar provides regular updates to the Assistant Deputy Minister on the activities of the College
- the Registrar meets regularly with the Office of the Fairness Commissioner
- the Registrar and President speak to as many of the 40 local dental societies as possible per year and address the Ontario Dental Association (ODA) three times per year
- the Registrar and President meet regularly with the ODA President and Executive Director
- the Registrar meets regularly with the Registrars of the College of Physicians and Surgeons of Ontario, the College of Nurses of Ontario and the Ontario College of Pharmacists, and other health Colleges, and regulators of professions outside health

- the Registrar meets with other stakeholders including advocacy groups, insurance groups and the federal government
- the Registrar is an Associate Professor at the two dental schools in Ontario and, in addition, meets regularly with the Deans
- the Registrar meets regularly with the Commission on Dental Accreditation of Canada (CDAC), the National Dental Examining Board of Canada (NDEB) and the Royal College of Dentists of Canada (RCDC).
- the Registrar collaborates regularly with non-regulatory Colleges and other relevant stakeholders.

8.6 Taking all of this evidence into account, we are satisfied that the College meets this standard.

Public appointees and other public stakeholders are appropriately involved in the work of the regulator

8.7 There are between nine and eleven public members on the Council, appointed by the Lieutenant-Governor in Council. There are 14 dentists; 12 are elected to the Council by registrants, and two are academic representatives, one each from the two universities in Ontario.

8.8 There are public members on all of the College's committees and panels, and the College has informed us that five of the Committees have public members as the Chair: Elections Committee, Fitness to Practise Committee, Finance, Property and Administration Committee, Legal and Legislation Committee and the Professional Liability Program Committee.

8.9 Despite being in the minority, it is clear from our discussion with members of the Executive Committee, and from our observation of an ICRC panel, that public members are vigorous in ensuring that the public interest is at the heart of decision making.

8.10 The public members themselves made clear to us that they felt fully integrated into the work of the College, that their contributions were valued and that they were supported in fulfilling their role.

8.11 All Council meetings are open to the public, and the College informs us that several members of the public regularly attend.

8.12 We have commented elsewhere in the report that we feel that the College needs to make renewed efforts to engage with members of the public and public organisations in particular in the development of its standards and guidance. However, we acknowledge that submissions from all parties to a consultation are considered.

8.13 We are satisfied that this standard is being met.

The roles and decision making powers of staff and statutory committees are clearly defined and support public protection

8.14 The College has provided us with substantial documentary evidence of induction material and guidance manuals and other materials for committee and Council members that guide them clearly on their role. We are

particularly impressed by the focus of this material on public protection, and the emphasis on avoiding bias and conflicts of interest.

8.15 It was evident through our discussion with members of staff and with Council and Executive Committee members that roles and boundaries are both clearly drawn and clearly understood.

8.16 Therefore, we are satisfied that this standard is being met.

The regulator ensures that all registrants remain up to date and fit to practise

8.17 The College has set out to us that the RHPA mandates a quality assurance programme, which is designed to ensure that the knowledge, skill and judgement of Ontario's dentists remains current throughout their careers; and that they continue to provide safe, effective, appropriate and ethical dental care to their patients.

8.18 The College's Quality Assurance Committee, one if its statutory committees, has responsibility for the development, review and evaluation of the College's QA programme. The objectives set out in the legislation include:

- to develop, establish and maintain programmes and standards of practice to assure the quality of the practice of the profession
- to develop, establish and maintain standards of knowledge and skill and programmes to promote continuing evaluation, competence and improvement among the members
- to develop, in collaboration and consultation with other Colleges, standards of knowledge, skill and judgement relating to the performance of controlled acts common among health professions to enhance interprofessional collaboration, while respecting the unique character of individual health professions and their members
- to promote interprofessional collaboration with other health professional colleges
- to develop, establish and maintain standards and programmes to promote the ability of members to respond to changes in practice environments, advances in technology and other emerging issues.

8.19 A Quality Assurance programme must contain:

- continuing education or professional improvement
- self, peer and practice assessments
- a mechanism for the College to monitor members' participation and compliance with the QA programme.

8.20 A new QA programme was launched by the College in December 2011. Every member holding a general or specialty certificate is required to participate in the QA programme. The College has set out to us that the QA programme has four main elements:

- all members are required to pursue continuing education activities as part of their commitment to the profession and lifelong learning. This includes

obtaining at least 90 points in the each three year cycle. There are three categories in which members may acquire points. This is supported by an e-portfolio which allows members to keep track of their points

- a Practice Enhancement Tool, which is an online self-assessment programme that allows members to evaluate and assess their basic competency including practice, knowledge, skill and judgement based on peer-derived standards, to be taken every five years. We understand that this is the first such tool developed in North America, and has been studied by the University of Toronto. The University's Faculty of Education has been engaged by the College to follow the programme and assess its goals and outcomes. The five year cycle reflects the pace of change in dental practice and is designed to ensure that dentists remain up to date
- a Practice Enhancement Consultant is available to be contacted by members to discuss their results, and to provide guidance in appropriate continuing education activities
- each year members are required to declare, as part of their annual renewal, whether they are in compliance with programme requirements.

8.21 We are satisfied that the College meets this standard.

9. Recommendations

9.1 We recommend that the College reconsiders how it might take more active steps to engage with the public in the development of guidance and standards. We recommend further that the approach taken encompasses both individual members of the public who might be interested to participate in consultation exercises, and patient and public representative groups (5.17).

9.2 We recommend that the RCDSO continues through its leadership of the CDRAF to influence and identify opportunities to expand the range of countries to which mutual recognition applies (6.5).

9.3 We recommend that the a future area of work for the College could be to look at the fairness of its registration practices in relation to people with a disability who wish to practise as dentists. From a strong starting point the College would be in a good position to demonstrate leadership in ensuring fair treatment of these applicants (6.20).

9.4 We recommend that the College reviews how successfully it is managing ADR, looking at whether the right cases are being dealt with through this process and if there are methods that could be employed to ensure that resolution is reached more quickly. An example might be to set criteria for when a case will be returned to the non-ADR route if there is a failure on the part of either the complainant or the registrant to engage with the process once it has been explained to them and they have agreed to enter into it; to adhere more strictly to timelines; and to explore approaches such as the use of teleconferences rather than face to face meetings (7.21).

9.5 We recommend that the RCDSO in collaboration with other colleges continues to pursue legislative reform with regard to the speed with which it is able to secure an interim suspension. The point of interim suspension orders is precisely to enable a regulator to take action quickly when public protection is a priority (7.27).

9.6 We recommend to the College that it is more explicit about the arguments and evidence for its remedial approach to handling complaints (7.30).

9.7 We recommend that the College continues to work with other colleges to pursue the legislative change required to secure more flexibility in complaints handling, possibly with a view to gaining powers to operate triage of complaints in some form at the initial stage (7.37).

9.8 We recommend that the College works in conjunction with other colleges in Ontario to explores whether there are ways that the staff could be more supportive to panels within the limits established by the law. (7.43).

9.9 We recommend that the College reviews its administrative processes for handling complaints. Such a review could bring in external expertise in process or operations management, and could seek to identify whether there are ways that key points in the process could be expedited within the limits placed on the College by its legislation and thus contribute towards the achievement of swifter and more efficient resolution of complaints (7.45).

9.10 We recommend that the College reviews how it presents the 150 day target in its letters, to ensure that this does not create any artificial expectations about the realistic timescale for the case, but also is clear about the point at which the 150 days starts and ends (7.46).

9.11 We recommend that the College reviews the way in which panels record and explain their decisions on the appropriate penalty or sanction in any given case, to ensure that these are achieving the greatest possible consistency and transparency in decision making (7.57).

10. People we spoke to in the course of the review

- Kelly Bolduc-O'Hare, public member of Council , RCDSO
- Eric Bruce, Reason Writer, Professional Conduct and Regulatory Affairs, RCDSO
- Ted Callaghan, public member of Council and Executive Committee member, RCDSO
- Thomas Corcoran, Chair, Health Professions Regulatory Advisory Council
- Irwin Fefergrad, Registrar RCDSO
- Dr Ramya Carmini Fernando, dentist
- Dr Michael Gardner, Manager, Quality Assurance RCDSO
- David Jacobs, Senior Counsel, Health Professions Appeal and Review Board
- Nuzhat Jafri, Executive Director, Office of the Fairness Commissioner
- His Worship K S Joseph, public member of Council, RCDSO
- Dr John Kalbfleisch, Executive Committee, RCDSO
- Catherine Kerr, public member of Council and Executive Committee member, RCDSO
- Robert Lees, Manager, Registrations
- Lori Long, Manager, Professional Conduct and Regulatory Affairs, RCDSO
- Peggi Mace, Communications Director, RCDSO
- Marianne Park, public member of Council, RCDSO
- Dayna Simon, Counsel, Regulatory Affairs, RCDSO
- Dr Peter Trainor, President, RCDSO
- Dr Ron Yaracavitch, Executive Committee member, RCDSO
- Deanna Williams, Supervisor, College of Denturists of Ontario

11. The Standards of Good Regulation[17]

Guidance and standards

- Standards of competence and conduct reflect up to date practice and legislation. They prioritise patient and service user safety and patient and service user centred care
- Additional guidance helps registrants to apply the regulators' standards of competence and conduct to specialist or specific issues including addressing diverse needs arising from patient and service user care.
- In development and revision of guidance and standards, the regulator takes account of stakeholders' views and experiences, external events and developments, international regulation and best practice, and learning from other areas of its work
- The standards and guidance are published in accessible formats. Registrants, potential registrants, patients, service users and members of the public are able to find the standards and guidance published by the regulator and can find out about the action that can be taken if the standards and guidance are not followed

Registration

- Only those who meet the relevant requirements are registered
- The registration process, including the management of appeals, is fair, based on the regulator's standards, efficient, transparent, secure, and continuously improving
- Through the regulator's register, everyone can easily access information about registrants, except in relation to their health, including whether there are restrictions on their practice
- Patients, service users and members of the public can find and check a health professional's registration, and are aware of the importance of doing so
- Risk of harm to the public and of damage to public confidence in the profession related to non-registrants using a protected title or undertaking a protected act is managed in a proportionate and risk based manner

Handling complaints

- Anybody can make a complaint about a registrant
- Where necessary the registrar can initiate an investigation without relying on the receipt of a complaint
- Information about complaints is shared with other organisations within the relevant legal frameworks

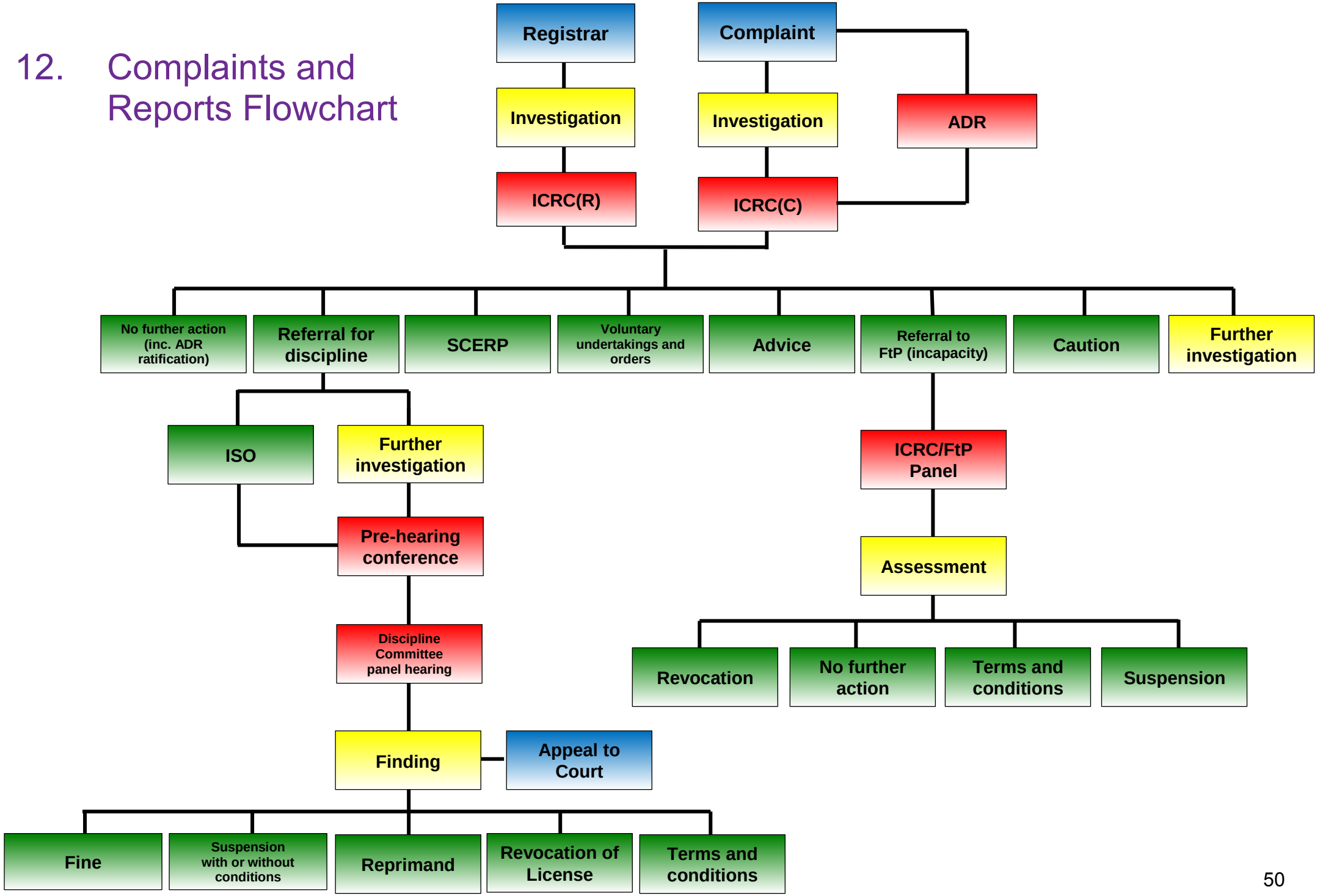
[17] See also footnote 2. As adapted for the legislative framework of professional regulation in Ontario, Canada

- The regulator will investigate a complaint, determine if there is a case to answer and take appropriate action including the imposition of sanctions
- All complaints are reviewed on receipt and serious cases are prioritised and where appropriate considered for an interim suspension
- The complaints process is transparent, fair, proportionate and focused on public protection
- Complaints are dealt with as quickly as possible taking into account the complexity and type of case and the conduct of both sides. Delays do not result in harm or potential harm to patients and service users. Where necessary the regulator protects the public by means of interim suspension
- All parties to a complaint are kept updated on the progress of their case and supported to participate effectively in the process
- All decisions, at every stage of the process, are well reasoned, consistent, protect the public and maintain confidence in the profession
- All final decisions, apart from matters relating to the health of a professional, are published and communicated to relevant stakeholders
- Information about complaints is securely retained

Other standards

- The regulator communicates effectively with members, associations, Government and other stakeholders
- Public appointees and other public stakeholders are appropriately involved in the work of the regulator
- The roles and decision making powers of staff and statutory committees are clearly defined and support public protection
- The regulator ensures that all registrants remain up to date and fit to practise.

12. Complaints and Reports Flowchart



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