InterACTIONS

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60 (3) July/juillet 2014

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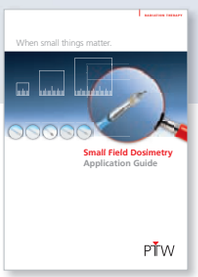

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Contents

Cover Image

A New Look for COMP!

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Message from the COMP President

"Management is doing things right; leadership is doing the right things".

- Peter Drucker

Already four years have passed since I decided that I would like to get more involved in COMP and that you, the members, let me do it! I must admit that the cycle of six years, starting with President Elect, followed by President and finally Past President seemed a long one at the time. It is indeed a significant commitment but, at the same time, it is amazing as it went quickly. COMP went through significant changes and undertook numerous projects and actions, all of which brings benefits to the entire membership. I feel very fortunate to have been able to play a small part in all this. The biggest lesson on being a COMP Board member is to see firsthand the dedication of our volunteers and the willingness of our members to participate, to create, to find, to do things better for the organization, for the field and ultimately for the Canadians population. I will of course stay for another two years as Past President and leave the President position to someone who has played a very active role on the Board for the past two years, Marco Carlone (I am here assuming, because of the NFP Act, that you will elect him as President at this year annual general meeting!).

Lorsque l'on s'embarque dans une aventure de 6 années, le premier réflexe est de se dire que cela sera un marathon et que l'on aura beaucoup de temps pour accomplir les tâches qui nous sont confiées. Il s'avère qu'après 4 années sur le comité de direction, je peux vous confirmer que le temps passe plus vite que l'on pense. Certains projets se réalisent plus vite que d'autres simplement en raison de la portée de ces projets ou de ce qu'ils impliquent. D'autres, comme la nouvelle loi sur les organismes à but non lucratif, sont non prévus et doivent simplement être faits!

Une chose que je retiens de ces quatre dernières années, c'est le dévouement de l'ensemble des bénévoles, mais aussi des membres de l'organisation en général. Comme le dit un proverbe africain: pour aller vite, il vaut mieux y aller seul, mais pour aller loin, il faut y aller ensemble. L'OCPM possède tous les éléments pour "aller loin". Ceci est une bonne nouvelle pour notre domaine, notre profession et, je pense sincèrement, pour l'ensemble des Canadiennes et Canadiens.

Reflecting on the quote cited at the beginning of this message, I sincerely believe that COMP is both doing things right and doing the right things! The latest example of doing the right things was for COMP to be involved in the Ontario HARP Act and defend the role of CCPM certified medical physicists to be recognized as radiation protection officers (RPOs). While we are still waiting for the results of this initiative, COMP needed to step-up to underline the knowledge and competency of its members across the country in this area: it doesn't matter where you studied and where you are working right now, RPO is something, as a qualified medical physicist, you should be able to do should you choose to. At the same time, COMP realized that the lack of formal medical physicists organizations in certain provinces make the discussion at the provincial level slightly more difficult. COMP is certainly prepared to help, however it can, provincial medical physicists to organize should they choose to. For example, the PAC, Imaging Committees and QARSAC are already functioning by having representatives across Canada. The first of such initiatives is that COMP has reserved $10,000/year to help provincial medical physicists organize low cost, close to home scientific and continuing education activities (something requested again and again by members) or professional meetings. Last year, only Quebec's AQPMC made a request for access

Luc Beaulieu

to these funds for CE activities. On the one hand, COMP will do more to advertise the existence of this fund, and, on the other, do not hesitate to ask COMP.

Meanwhile, our effort with HARP has lead the Ontario Medical Association to ask COMP to participate on an advisory task force as technology and imaging science experts in an effort to generate a science-focused document on modern x-ray imaging, including CT. This effort is currently lead by Ting Lee, who was also involved in the RPO issue with HARP. Similarly, CAMRT invited COMP (and CAR) to participate in a two-day symposium on future technology (Luc Beaulieu and Jan Cameron). This first one was imaging-specific. It was well-organized and lead to very open discussions between all the participants. A future symposium will likely include radiation oncology. Similarly, COMP accepted the invitation of CAR to participate (Luc Beaulieu and Alain Gauvin) in its annual meeting in Montreal last April and, in particular, in its special Board meeting with an afternoon session dedicated to "Quality and Appropriateness and the Sustainability of the Healthcare System".

COMP was also invited to present

continued on page 92

Message from the CCPM President

At the time of my last column, the Board was in the process of finalizing the new Regulations of the College. These Regulations replace what were previously known as our Policies and Procedures. New Regulations were required to ensure consistency with our new bylaws, which were approved by the membership at our last AGM. Finalizing the new Regulations was the last step in adapting our operations to meet the requirements of the new Canada Not-For-Profit (NFP) legislation.

Fulfilling our obligations under the new Act required examining our Regulations in detail. It had been some time since a complete review of our Regulations had been carried out, and so we seized the opportunity to bring them up to date, clarify some sections, and add new details where necessary. The new Regulations have now been approved by the Board and are presently in the process of being translated.

Throughout the process of complying with the new Act, the Board has made a determined effort to keep our Members informed about any significant changes that have taken place in how our College operates. You have all been sent a number of communications outlining the changes to our bylaws and Articles of Continuance. Since enacting the new Regulations is the final step in this process, I feel it is important to keep you all informed about the changes that have been made:

- First, with regard to updating our Regulations to align them with our new bylaws, many references to the Joint Executive Committee and Joint Finance Committee have been deleted. These committees no longer exist. At one time, the Joint Finance Committee was a key instrument in our funding process. Since I have previously devoted a lot of space to describing the new funding arrangement between COMP and CCPM, I won't go into detail here, but funds are now provided to CCPM through a contractual arrangement with COMP.
- In our old Policies and Procedures, there were a number of outdated references to forms, mail, and email. Although we have been using the website extensively over the past few years, there were places where our Policies and Procedures hadn't been kept up to date. We now carry on most of our business through our website, and this is reflected in our new Regulations.
- A new Exam Content Review Committee has been formed to review and assess the content of the question bank on which the Membership exam is based. This will help to ensure that the exam content is kept relevant. The new Regulations describe this committee, which is chaired by the Deputy Chief Examiner.
- Our previous Policies and Procedures contained a section on the CCPM Symposium that has historically been held at the COMP Annual Scientific Meeting. All educational activities have now been formally handed over to COMP, so this section has been removed.
- As required by the NFP Act, Board members must now be elected. This represents a fundamental change in our operations in that Board members were previously nominated by the Nominating Committee, and then ratified by the Membership. The new Regulations have been changed to comply with the new Act. The terms of reference for the Nominating Committee have been rewritten to reflect this new reality.
- A section detailing how replacement certificates can be issued if required has been added.
- The rules for eligibility for Membership, especially as related to the degree required, the experience required, and the required letters of reference, have been clarified. In the past, some of the wording in these sections has been found to be somewhat vague. It is hoped that the new, more explicit wording, will make the assessment of applications easier. As well, ACPSEM-accredited programs are now recognized as equivalent to CAMPEP-accredited programs.
- Although there have been a few minor wording changes and clarifications made, the examination process has not changed.
- Similar clarifications have been made to the eligibility requirements for Fellowship. As well, the examination design for the Fellowship exam has been more explicitly outlined.
- There have been a number of instances in the past where persons who have been scheduled to sit exams have withdrawn at a very late stage in the process. Definite time limits have now

Matthew G. Schmid

continued on page 92

Executive Director Report

It is hard to believe that we are over half way through our 25th anniversary year. So much has happened in the past few months and there is so much for COMP to celebrate:

- Over 220 delegates will gather in beautiful Banff, Alberta for the 60th annual scientific meeting. This meeting was planned and coordinated under the leadership of Derek Brown using a new model that not only involved members who are local to the Banff area but also engaged creative and dynamic medical physicists from across the country. One key change was the inclusion of Student Council Chair, Michael Balderson, on the planning committee. Having the perspective of the students on the planning team increased the participation in the Young Investigator Symposium and overall student engagement in the meeting. In a time when many professional organizations struggle to maintain viable annual meetings, COMP should be very proud of its success. Our ASMs are fortunate to have consistent participation by a cross-section of members from across the country, are able to subsidize student participation and generate funds that can be used to support other initiatives.
- COMP's new logo was launched – thank you all for your feedback on the designs that were considered.
- We published our first ever annual report – a document that highlights our successes in 2013 and will help to increase the profile of the profession. As with anything that is done for the first time, creating the report was a time consuming effort and could not have been done without the contribution of Parminder Basran, Idris Elbakri and all of the COMP Board members.
- The 2015 World Congress is fast approaching. This provides COMP with an important opportunity to shine the spotlight on the achievements of the medical physics community in Canada. The planning committee has been hard at work for many months to ensure that the Canadian meeting exceeds expectations and is the most successful World Congress to date. This significant undertaking needs all of our support so please promote it to your colleagues and mark your calendars for June 7th – 12th.
- Plans for the 2015 Winter School are well underway under the capable leadership of John Kildea. The meeting will build on past successes and will also incorporate new ideas and faculty. The Winter School will once again be scheduled in conjunction with CPQR meetings so that we can continue to build on the synergy between the two organizations. If you haven't attended a Winter School yet we hope you plan on attending in 2015. If you have been in the past, please spread the word to your colleagues and consider joining us again – the meeting gets better every year.
- Three surveys have been developed and circulated:
  - A survey of Ontario-based members to determine next steps with respect to the Ontario HARP Act specifically and the creation of an Ontario Organization of Medical Physicists.
  - The Quality Assurance and Radiation Safety Advisory Committee's survey of Medical Physics Department Heads across Canada to determine the Impact of the CPQR Technical Quality Control Guidelines.
  - The bi-annual COMP Professional Survey.
- COMP has participated in roundtable discussions at the Annual Scientific Meetings of both the Canadian Association of Radiologists and the Canadian Association of Medical Radiation Technologists. As our profile increases, we are called upon more often to share our knowledge and expertise and provide input on guidelines developed by our partner organizations. Our Imaging and Professional Affairs Committee members in particular have been very generous with their time and supportive of various initiatives of other organizations.
- We are continuing to manage the finances of CPQR and provide quarterly financial reports. This work was done by CARO in the past and was taken over by COMP in 2013. While the arrangement between the two organizations works well and makes sense strategically, it does require extra time on the part of both the COMP Treasurer and the COMP Office.
- Work on the new website is well underway. We have been talking about this project for quite some time now and progress is being made. As you can appreciate, it was important to get the design requirements clearly defined up front which was time consuming and we are hopeful that progress will now proceed more quickly.

Ms Nancy Barrett

The professionalism, camaraderie and commitment of our volunteers and members is a significant asset of COMP and something to be very proud of. Both Gisele and I are grateful for your support. As always, please feel free to contact us with any suggestions or feedback.

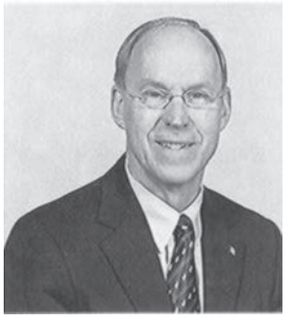
Enjoy the summer!

Two Medical Physicists Honored at Western's Medical Convocation

Jake Van Dyk received an honorary doctoral degree for his outstanding lifetime achievements in radiation oncology physics - as a researcher, author, and international educator. The nomination was led by Drs. Eugene Wong, J. Battista, and G. Bauman.

HONORARY DEGREE RECIPIENT

PROFESSOR JACOB VAN DYK



Professor Jacob Van Dyk has devoted his professional career to advancing the field of medical physics, specifically the safe and effective use of therapeutic radiation for the treatment of cancer. In doing so, he has touched the lives of millions of people in Canada and around the world.

Following receipt of his MSc in Physics from Western University in 1971, Professor Van Dyk was appointed Medical Physicist at Princess Margaret Hospital and Lecturer in the Department of Medical Biophysics at the University of Toronto, subsequently rising to the position of Associate Professor.

It was during this time he performed research that significantly advanced knowledge of radiation biology of lung injury resulting from radiation therapy. With the advent of CT scanners in the 1970s, Professor Van Dyk seized the opportunity and combined CT-based lung density measurements with pixel-based dose calculations to determine the dose response for the human lung. The resultant lung tolerance doses have been cited as a standard reference for decades.

Working closely with Dr. Richard Hill, he further demonstrated unexpected effects of radiation that occurred well outside of the treatment fields. Today, such "bystander effects" are actively researched.

In 1995, he returned to London as the Head of the Physics and Engineering group at the London Regional Cancer Centre, and as an associate professor with the Department of Oncology, Schulich School of Medicine & Dentistry. Appointments as an associate professor with the Department of Medical Biophysics, adjunct professor, Department of Physics and Astronomy, and member, Faculty of Graduate Studies would follow. Within a few years, he received full professor status within all of these departments, as well as the Department of Medical Imaging.

Professor Van Dyk's publications and recommendations are embodied in quality assurance standards used throughout the world. He has led the development of international standards for the quality assurance of computerized treatment planning systems: a critical component of modern radiotherapy procedures. Additionally, his creative experimental skills are evident in test "phantoms" used to verify the execution of specialized irradiation techniques. His ingenuity has resulted in a series of commercialized tools marketed under the brand name "Quasar" (Modus Medical Devices, London. Ontario). He is also the editor and lead contributor to "The Modern Technology of Radiation Oncology: A Compendium for Medical Physicists and Radiation Oncologists (Volumes 1-3)''.

Professor Van Dyk's contributions to the field or Medical Physics are reflected in hundreds of journal publications and lectures across the world. He is recognized as a Fellow of the Canadian College of Physicists in Medicine, the American Association of Physicists in Medicine, and the Institute of Physics in the United Kingdom. In 2011, he was awarded the Canadian Organization of Medical Physicists' highest award: the Gold Medal.

In 2011, Professor Van Dyk retired and assumed the position of Professor Emeritus. Today, he continues to work in Radiation Medicine through his role with the International Atomic Energy Agency, assisting developing countries. He also continues to contribute to academic life at Schulich Medicine & Dentistry through the Departments of Oncology, and Medical Biophysics.

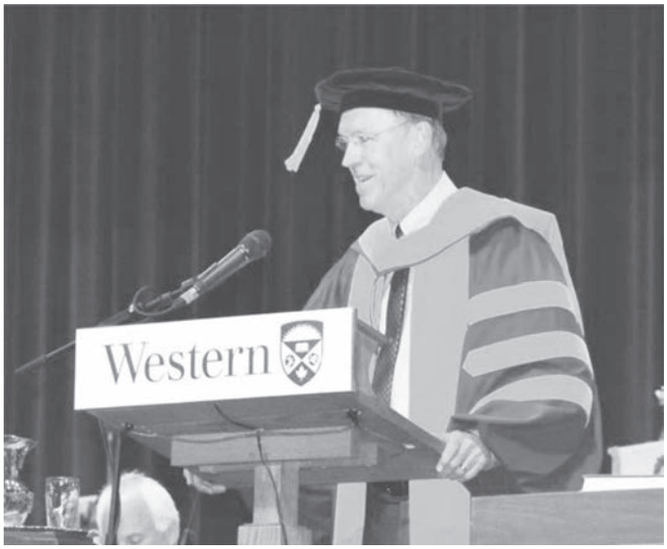
Jerry Battista received the university's top award for excellence in teaching at Western over a period of 25 years (Edward G. Pleva Award for Excellence in Teaching). His former students came forward with heart-warming testimonials and strong letters of support. His recent development of the DesKCAT scanner and lab exercises also drew attention of the awards committee.

JERRY J. BATTISTA

Department of Medical Biophysics, Schulich School of Medicine & Dentistry

Photo: courtesy of Wendy Hough

During his decades of experience, Dr. Jerry Battista has proven his commitment to education. His personal teaching philosophy emphasizes making his lectures impactful to the students' lives. He aims to "start from a comfort zone" using every day analogies before delving into the more challenging course material. Battista makes the learning environment non-threatening to students. He is praised by students for his "good sense of humour," his "responsive demeanor," and his ability to "deliver a lecture that leaves the audience captivated." Battista's contributions go beyond the classroom. One of Battista's most significant contributions to education is the development of DeskCAT, a device that brings the concepts of medical CT scanners to the classroom. These devices have been hailed as "highly beneficial" to students and are now used in over 30 universities worldwide. Battista also successfully converted an in-class course into an online Web-based course, one which colleagues hailed as "superb." Battista was also instrumental in the external (CAMPEP) Accreditation of Medical Biophysics education at Western, with a program specifically designed to give PhD students clinical skills they'll need in their careers beyond technical knowledge and research. The program is flourishing with a number of graduate students currently enrolled in this special program. Battista's dedication to teaching within the Western community shows how much one person can enrich the lives of so many.



Jack Van Dyk at Western's medical convocation.

Jerry Battista at Western's medical convocation.

COMP Student Council Updates

Congratulations to Jennifer Moroz on her successful application for the 1st annual COMP Student Exchange Program!

by COMP Student Council

Jennifer is presently a fourth year PhD student at the University of British Columbia studying the measurement of a high-temporal resolution arterial input function (AIF) for dynamic contrast enhanced MRI analysis. As this year's successful applicant of the COMP Student Exchange Program, she will receive funding from COMP to support her travel to Montreal, Quebec where she will be working under the supervision of Dr. Ives Levesque and William Parker at the McGill General Hospital. During her exchange, she will follow a clinical rotation and perform research on a clinically relevant MRI-specific project. Jennifer plans to apply for a clinical residency position in radiation therapy following graduation and hopes that the experience gained from the exchange will help her to better understand the roles of a clinical medical physicist.

We wish Jennifer all the best in her endeavours and look forward to reading a summary report of her exchange in October 2014 issue of InterACTIONS!

Student Events at the 2014 COMP Annual Scientific Meeting

by COMP Student Council (admin@medphys.ca)

You are cordially invited to attend two superb networking and social events hosted by your COMP Student Council at this year's ASM in Banff, Alberta:

(1) COMP Student Luncheon

Thursday, July 10th at 12:30-1:30pm

Directors and representatives of Medical Physics Residency and Graduate Programs from across Canada will join us for roundtable discussions with students while a ***complimentary lunch*** is served. This is an excellent opportunity to network, garner details of particular programs, and learn how best to prepare as potential applicants. Additionally, we will be summarizing the past year's events and electing two new Co-Chairs of the Student Council, as per our terms of reference.

(2) The Student Night Out

Thursday, July 10th at 8 pm (after the Poster Reception)

With a backdrop as beautiful as Banff, we are looking forward to hosting a fun-filled social night out at the **Rose and Crown Restaurant & Pub.** Come enjoy a night out with your fellow students and even have a chance to chat one-on-one with a few members of the COMP and CCPM executive boards. Appetizers, a meal, and your first drink will be provided on us!

We are looking forward to seeing you in Banff!

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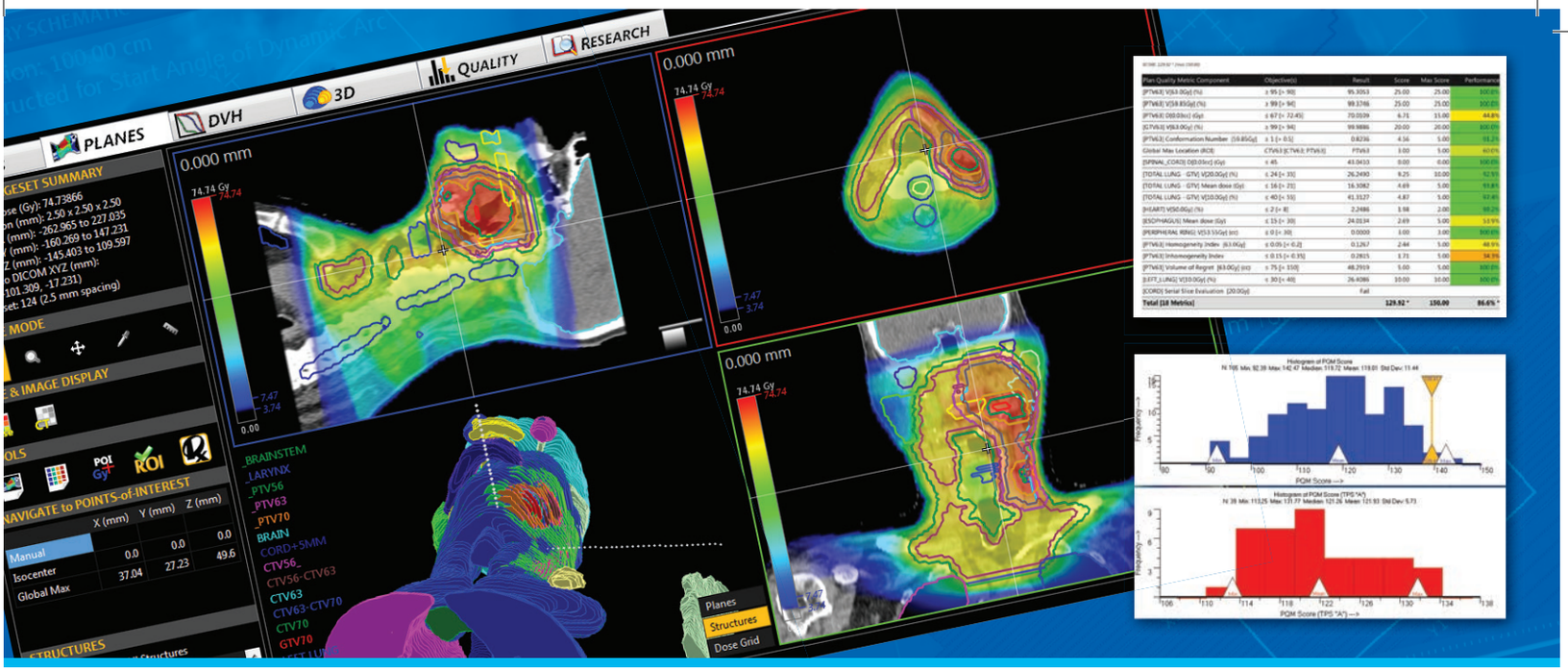

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> *I like the way it works and flows. The software and analysis have already impacted the way we plan, so it is making a clinical difference.*

Lou Nardella
Medical Physicist
Pocono Medical Center

[1] "Variation in external treatment plan quality: An inter-institutional study of planners and planning systems," B.Nelms, et al., Practical Radiation Oncology 2012 Oct;2(4):296-305

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COMP Communication Committee Updates

Parminder S. Basran, PhD, FCCPM

Chair- Communications Committee
BC Cancer Agency-Vancouver Island Centre

Last issue I wrote a note about pending enhancements to COMP services and forthcoming changes undertaken by Communications Committee. Here are some updates on our initiatives.

Website update

Our ad-hoc website committee is working on the design for the new website. We are hopeful we can have something in place by the summer.

Logo and rebranding

You probably received the email burst on the issue, but I'll provide some more details. Earlier this year, the Board put out a call for a new logo and received a variety of proposals. After much debate and conversation, the Board narrowed down choices for the new COMP logo to three. In mid-April, we asked you for your input on these three logos. We were very pleased that 185 members provided input and many of you took the time to provide additional comments. Here is a summary of those responses:

Do you feel that the logo is pleasing to the eye? (Percent of respondents)

	Logo 1	Logo 2	Logo 3
Very Much	15.1	57.8	17.8
A Little	26.5	34.1	38.4
No preference	10.3	2.7	15.1
Not so Much	37.3	3.8	24.3
Not at all	10.8	1.6	4.3

With a large majority of respondents (92%) either liking Logo 2 "Very Much" or "A Little", we have a strong consensus (and hopefully compromise!).

An opinion on our organization's visual identity is personal one. The challenge the Board faces is having a consistent visual identity with a modern look and keeping our professional goals above our personal opinions. About 6.5% of respondents made comments that the old logo should be kept. A similar number (mostly the same) of respondents suggested keeping our existing logo and simply adding the text (side note: Sherry Connors forwarded me a logo circa 1996 that displayed both the logo and text). While this might be a good idea in the short term, the fact of the matter is that COMP does not have a collection-bank of high-resolution logos, let alone a style guide for representing our profession! Many of the older logos and text were created ad-hoc either by volunteers or by a publisher (at their discretion). This is not to say that those efforts were substandard. But in today's multimedia savvy environment, consistency in our visual presence is important. Having a professionally designed logo and style guide sets a tone for our new website and future endeavors.

The fact that people care about how our organization looks expresses a strong connection to our organization. Varied opinions on thoughts on what COMP *should* look like demonstrates that our members care about the issue. We thank all respondents for their feedback.

Photo challenge

Lastly, the photo contest was, unfortunately, not a great success. We received a handful of images (for which we are grateful for), but the number of contributions fell well short of our expectations. I once again encourage you to send us images. We're particularly interested how you might visually capture the question "What does Medical Physics look like?". So get out your smart phones, click away and email them!

As always, if you have questions or comments, please contact me. See you in Banff!

CNSC Feedback Forum

Practices That Go Beyond Expectations Found During Inspections of Class II Facilities

Rick Kosierb, MEng, Peng, CD

Project Officer,

Accelerators and Class II Facilities Division/ Division des installations de catégorie II et des accélérateurs

Directorate of Nuclear Substance Regulation / Direction de la réglementation des substances nucléaires

Canadian Nuclear Safety Commission/ Commission Canadienne de sûreté nucléaire

In the CNSC Feedback Forum within the April 2014 issue of InterACTIONS, my colleague, Mike Heimann, provided information on the most common non-compliances found when our divisional personnel perform Class II facility inspections. As the article indicated, over 50% of the non-compliances are: not following procedures previously submitted to the CNSC, following procedures that were not submitted to the CNSC, or not taking all reasonable safety precautions. The article also offers suggestions on how to avoid these and other non-compliances. A poster on the subject will be presented at the COMP ASM in July.

This article complements Mike's by describing the practices that some licensees have taken that go beyond our expectations. It discusses the positive aspects we have seen during our inspections. In order to do so, I reviewed all of the inspection reports dating back to 2007 and had discussions with the various CNSC facility project officers. I hope that the information provides some insight on how facilities can make their areas much safer for their staff, the patients' family members and the environment. I have categorized them into six main areas: Equipment, Servicing, Software, Procedures, Awareness and, finally, Participation. A discussion of each one follows with examples of these outstanding practices.

Equipment

The *Class II Nuclear Facilities and Prescribed Equipment Regulation, Section 15* on Radiation Protection prescribes most of the safety system requirements for Class II facilities and equipment. This section describes the need for devices to prevent the unnecessary entry of a person while the radiation-emitting instrument is in operation. A few licensees have gone beyond the requirements and added extra measures to prevent this incursion. Cape Breton District Health Authority (CBDHA) is one example of "going the extra mile". They incorporated a chime and a warning light in the mechanical room behind their Linac (see Fig 1). The warning light illuminates the words: "door closing" and the chime sounds on activation of the last-person-out (LPO) button. These devices ensure that anyone working in the mechanical room that was missed upon the activation of the first LPO has sufficient time to exit/stop the Linac operation.

Fig 1: CBDHA's warning system in the room behind the linac.

Fig 2 displays the employment of environmental dosimeters by the Ottawa Hospital Cancer Centre (TOHCC). Placed outside in public-accessed locations and in the Linac console rooms, these dosimeters provide additional reassurance to the staff and management that the radiation is below the designated levels. The dosimeters also served to supplement the survey meter readings completed for the newly installed Cyberknife. The information was quite useful since the non-isocentric nature of this device makes it difficult to know every possible beam orientation.

Fig 2: Area Dosimeters outside TOHCC's Cyberknife location.

A simple innovative device developed by the staff at the Hamilton Health Sciences Corporation (HHSC) gives an accurate reading of how long a high dose rate Brachytherapy treatment (HDR) has occurred. This facility uses a wall-mounted timer connected to the area monitor (see Fig 3) within a HDR room. It is especially useful in the event of a stuck source in that it provides a record of how long the source was compromised.

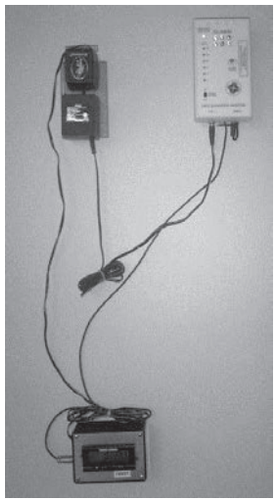


Fig 3: HHSC's timer within HDR brachytherapy room.

Many extra safety systems do not need to be costly and still provide that extra insurance of radiation protection. The staff at the Sudbury's Health Sciences North (HSN) installed retractable tapes (see Fig 4) at the entrances of their linac rooms along with the necessary visual warning lights. It is just a simple means to prevent unauthorized personnel from wandering into the area believing it is the way to the cafeteria or the washrooms.

Fig 4: HSN's mechanism to prevent unauthorized entry.

Servicing

When it comes to the servicing activities, the most common violations are related to licensees not adhering to protocols for returning the machine to routine use. We understand there is a need to get the device back in operation as soon as possible, and some innovative licensees have taken steps to ensure that safety is not compromised in the process. Lakeridge Health (LH) has installed wooden, non-shielded doors at the entrances of their mazes (see Fig 5). These lockable doors provide security and safety when the linac is down for maintenance and left overnight unattended. There is zero risk of the morning staff absently turning the instrument on or tripping over sensitive parts. The keys to the linac under service are also kept apart from those of the functional linacs by keeping them in a separate key cabinet (see Fig 6).

Fig 5: LH's lockable door into maze.
Fig 6: LH's "Out of Clinical Use" locked key box.

In the case of HSN, they have a communication binder. I know what you are going to say: "many facilities have binders/books in their control rooms to communicate information about the instrument". HSN is a diligent user of the binders to pass on, not policies but, work instructions and items being changed or implemented involving the subject instrument. The staff is fully cognizant of the device's recent maintenance by reading the binder in the morning.

Software

Computers and software have become major components within our lives today with communications, like the above binder, being done electronically. Name annotation can easily be recorded on who has read the information. However, it is difficult to merge communication software with the actual instrument's program or with the facility's QA program. Two cancer centres have developed excellent software which assists their staff: Kitchener's Grand River Regional Cancer Centre (GRRCC) and TOHCC.

GRRCC has developed a maintenance database, TekDB (Fig 7), where any service call starts the process by entering the appropriate information, like time of call, the specific machine, problem details, outstanding issues related to the problem, etc. This database has the ability of part ordering and keeping the machine's mechanical history. Further, GRRCC's procedures dictate that their service technicians or physicists (depending on the work) must sign off in a binder allocated for each machine that the machine is now operational. GRRCC exceeded expectations by devising a system where their clinical devices are operating at an efficient and safe level and by viewing their mechanical life histories.

Fig 7: Front page of GRRCC's TekDB.

On the other side of this discussion, TOHCC has Quality Assurance (QA) software called QA Track + (see Fig 8). The development of the software was to facilitate their entire QA program and act as a quality control repository. The program provides the electronic checklist for a clinical machine's operation prior to its start-up. Data entry is done both on a daily and monthly basis where trends can be observed. Flags will appear when values are outside defined limits or when specific actions have not occurred at the appropriate time. It is a comprehensive program ensuring TOHCC's clinical staff follows the designated procedures.

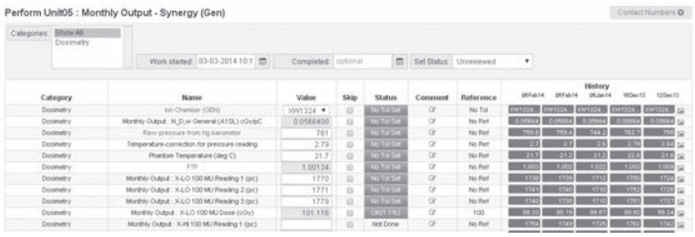


Fig 8: Input page for TOHCC's QA Track + program.

It would be ideal if these two programs could "handshake" allowing the maintenance aspects of a specific machine to be correlated with its operational performance.

Procedures

Although not mandated by our regulations, an audit program, either internal, like TOHCC, or external, like the British Columbia Cancer Agency (BCCA), would assist facilities in meeting their regulatory commitments. An annual check aids in a facility's ability to be compliant prior to a CNSC's inspection.

TOHCC performs internal audits similar to the CNSC inspections of all of its licensed areas on an annual basis, as a minimum. The strength of the internal audits lies with the follow-up actions needing completion prior to closure of the audit. Further, all results are reported to the responsible VP quarterly and incorporated into the department leaders' evaluation.

A slightly different approach is employed by the BCCA. Instead of using internal resources to perform the audits, BCCA employs Radiation Safety Officers (RSOs) from other cancer centres in the province to perform the evaluation. Each centre knows in advance of when their audit will be performed, occurring at least once every three years. Like TOHCC, their checklist (see Fig 9), is similar to that utilized by the CNSC. An external audit program similar to BCCA is beneficial, if possible, in that it has an outside, non-familiar set of "eyes" reviewing the facility's compliance.

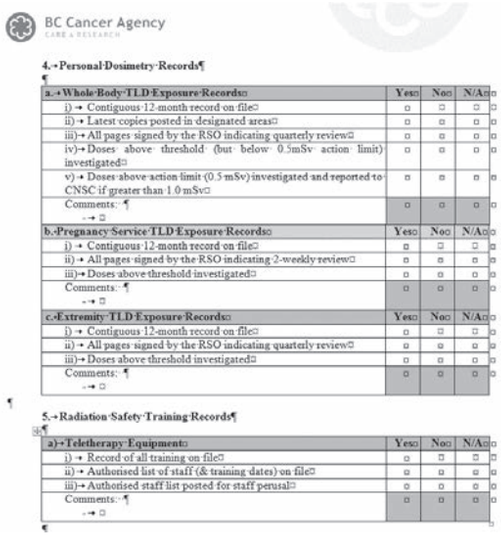
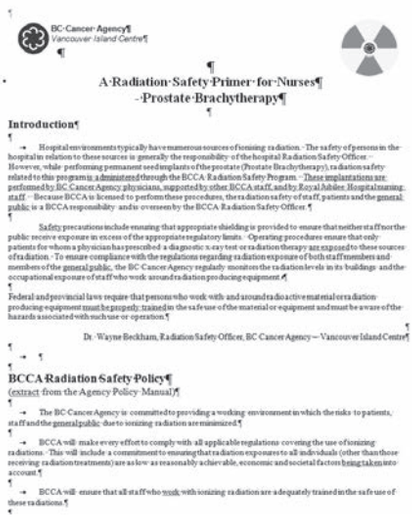


Fig 9: Page from BCCA's audit checklist.

Awareness

Many facilities have gone beyond the requirements of CNSC's *Radiation Protection Regulation, Section 4 (a) (ii)* for personnel training by creating handouts and programs not specifically dedicated to the immediate cancer centres' staff. For example, BCCA has created handouts on radiation protection oriented for specific personnel (see Fig 10). HHSC is unique by tailoring different modules of their NEW 40-60 minute training to accommodate specific staff members (see Fig 11). The security staff at GRRCC went on their own initiative to develop a training module specifically focused on the licensed facility. They have developed scenarios for these specific personnel to understand the hazards and security. These are just a few examples observed by our inspectors of going beyond the mandatory training.



Figs 10: BCCA's radiation protection handouts.

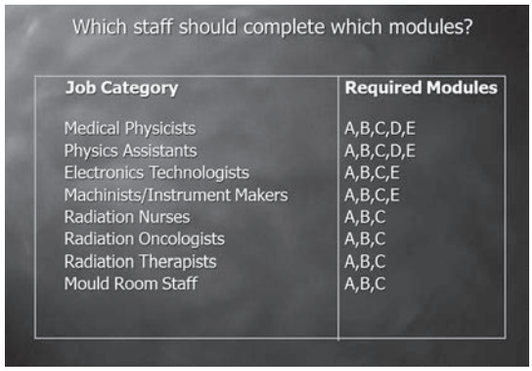


Fig 11: HHSC's specialized training.

Participation

In April of this year, CNSC issued a letter to all licensees who possess source-based radiation therapy equipment, detailing that the training required by Radiation Protection Regulation, Section 4 for these instruments must involve periodic "hands-on" training. The letter discusses the high risk/high stress situation of a stuck source for HDR Brachytherapy and the wide variations of training for such an emergency. Expectations now are that all personnel involved in these emergencies know their roles and responsibilities and partake in a simulated emergency.

This dry run training helps staff act appropriately when a real emergency does occur. Cancer Care Manitoba (CCM) takes it one-step further in that they hold training sessions once a month and it is mandatory that an individual has completed two per year. They see this frequency as idea in that the training groups are small, allowing for full participation.

The Centre de santé et des services sociaux de Trois-Rivières (CSS) performs this same role-playing training activity and they have added a different twist. They place various scenarios, such as a stuck source or radioactive spill, into a hat and select one to role-play. Every individual of the CSS staff must participate in this activity at least once a year.

We see conducting simulations as excellent training and would like to see it progress one level higher in the role-playing. After being comfortable in his/her responsibilities, a staff member could act in another role in these simulations in order to understand the challenges in that specific position and, secondly, act in that role if the emergency dictates.

Summary

Many of our licensees have gone "the extra mile" to ensure they provide radiation safety and awareness beyond CNSC expectations. We commend them for performing these actions, even with their very busy schedules and the number one importance of treating patients.

These are just a few selected examples of the practices we think are noteworthy and we hope that by sharing these with the readership, we will inspire others to examine their programs and find items that they can perform beyond the norm. A poster with the examples discussed here and others will be presented at the upcoming COMP ASM in Banff, and we hope to see many of you there.

Our thanks go out to the licensees who have given us permission to share their information with you. If we miss you at Banff, please contact me, Rick Kosierb, at Rick.Kosierb@cnsc-ccsn.gc.ca for a copy of my poster after the meeting in July.

As always, we welcome feedback on this or any other article in this series. Your comments and suggestions for future articles can be sent to Kavita.Murthy@cnsc-ccsn.gc.ca

Dates to Remember

5th International Workshop on Monte Carlo Techniques in Medical Physics, Montreal, QC
June 17th – 20th

COMP 60th Annual Scientific Meeting, The Banff Centre, Banff, AB.
July 9th-12th

AAPM 56th Annual Meeting & Exhibition, Austin, USA.
July 20th – 24th

Symposium on Small Animal Precision Image-Guided Radiotherapy, Vancouver, B.C.
August 11th – 13th

Deadline for October issue of InterACTIONS.
Sept 1st

8th International Conference on 3D Radiation Dosimetry, Ystad, Sweden.
Sept 4th – 7th

Deadline to submit questions for CCPM certification question bank.
Sept 26th

2015 Canadian Winter School, Kelowna, BC.
Feb 1st – 5th, 2015

World Congress, Toronto, ON.
June 7th – 12th, 2015

Message from the COMP President

continued from page 77

(many thanks to John Schreiner) to the CNSC Commission on the practice of radiation therapy in Canada on May 7th. This initiative stems from the high-level discussion and feedback received during the last Winter School between participants and CNSC. Michael Milosevic from CPQR was also present to further discuss the topic of patient safety. Note that CPQR is a strong supporter of the Winter School, and this underlines once more the breadth of relationships that COMP is nurturing.

As a side note, it is very interesting that while COMP and the radiation therapy community have been heavily involved in quality and safety for the past five years, this topic is now becoming as important for the radiology community. Some of the topics discussed at the CAR meeting in April were very similar to those discussed at the COMP Winter School since the very beginning. There is clearly an opportunity for COMP to play a role in that space, and we have the expertise and know-how to help our colleagues from CAR and others.

For the COMP 25th anniversary, a few changes and new elements are on the way. As you have recently noticed, COMP has a new logo, selected by you, the members, following a membership wide survey. A new website is also underway, and this year COMP will produce its first annual formal report publication. Our goal is to position COMP as the voice of medical physics in Canada and the above initiatives will provide the visibility and the infrastructure necessary to achieve that goal. Please do continue to provide your feedback on such initiatives; it is the most direct way for us to make sure that they are representative of your need.

It has been a pleasure to serve COMP as President and interact with you via this section of InterACTIONS. I look forward to many more years of volunteering.

Merci à toutes et tous sur le Comité de direction de l'OCPM pour votre temps et dévouements, ainsi qu'à l'ensemble des bénévoles de l'organisation. Ce fut un plaisir d'être à la direction d'une organisation comme l'OCPM. Bien qu'il me reste encore 2 années comme président sortant, je suis convaincu que je saurais continuer de mon temps pour aider l'organisation dans le futur.

Message from the CCPM President

continued from page 78

been placed on the issuance of refunds related to the examination process.

- Clarifications have been made in the recertification section as regards the declaration of an individual's sub-specialty.
- The rules about paying dues have been clarified and strengthened. It is now a possibility that Membership will be revoked if dues are in arrears by more than 6 months. Many of the details concerning revocation of Membership, that were previously in our policies and procedures, have been removed because they are now explicit in our bylaws and/or in the NFP Act.
- Formal rules regarding retirement have been included in the new Regulations. Members now retain their certification status until they fail to recertify or fail to renew their COMP Membership. This means that Members may remain on the registry of certified physicists for some time after they retire from full time employment.
- A number of changes have been made in the Mammography Certification section, but again, these are mostly updates and clarifications. The examination process and eligibility are essentially unchanged. The process has changed, however, in that applications will now go through the CCPM office, rather than going directly to the chair of the Mammography Certification Committee. The details of the Mammography recertification process have been clarified.

In other news, development of our new website is well underway. Carrying this to completion will be a large job. The structure as well as the content will be changing. When complete, the website will make it easier to find required information and submit documents related to our various certification processes. We're hopeful this will be online this fall.

The primary vehicle by which Members can have direct input into the affairs of the College is our Annual General Meeting. The meeting this year will take place in Banff on July 10, 2014. As always, I strongly encourage all members who are able to get there to attend.

New COMP Members

Please welcome the following new members who have joined COMP since our last issue:

Last Name	First Name	Institute/Employer	Membership Type
Behinaein	Sepideh	McMaster University	Student
Berman	Avery	McGill University	Student
Blais	Adam	Western University	Student
Coates	James	McGill University	Student
Granville	Dal	Carleton University	Student
Ecclestone	Gillian	Tom Baker Cancer Centre	Associate
Frimeth	Jeff	Xspect Inc.	Full
Guillet	Dominique	McGill University	Student
Hoang	Peter	McMaster University	Student
Howard	Laurie	Accuray	Corporate
Joseph	Ackeem	McGill University	Student
Mader	Joanna	University of Victoria	Student
Maglieri	Robert	McGill University	Student
Mallawi	Abrar	McMaster University	Student
Marants	Raanan	Carleton University	Student
Miller	Neal	Mobius Medical Systems LP	Corporate
Mitrou	Ellis	Hôpital Notre Dame	Full
Morrison	Hali	University of Alberta	Student
O'Grady	Kyle	McGill University	Student
Péloquin	Simon	Université de Montréal	Student
Perez	Jessica	McGill University	Student
Reinstein	Lawrence	St. Peter's Hospital	Full
Schinkel	Colleen	Central Maryland Radiation Oncology Center	Full
Song	William	Sunnybrook Health Sciences Centre	Full
Stevens	Todd	London Regional Cancer Program	Full
Tadic	Tony	Princess Margaret Cancer Centre	Full
Uddin	Md Tofiz	National Institute of Cancer Research Hospital	Student
Wiebe	Jared	Tom Baker Cancer Centre	Student
Wilson	Byron	University of British Columbia	Student
Winter	Jeff	Juravinski Cancer Centre	Full
Zhang	Ruohui	Hebei Medical University	Student

Congratulations to our past student members who are now full members:

Last Name	First Name	Institute/Employer
Tam	Cindy	Sunnybrook Odette Cancer Centre
Sutherland	Justin	Ottawa Hospital Cancer Centre

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Questions, questions, looking for CCPM questions

Renée Larouche
Deputy Examiner CCPM

The CCPM is requesting help from the membership in expanding our bank of multiple-choice questions for Part I (general) and Part II (Radiation Safety for Radiation Oncology, Diagnostic Radiological Imaging and Nuclear Medicine Imaging specialty, or Magnetic Resonance Imaging Safety for the Magnetic Resonance Imaging specialty) of the membership exam. In recognition for your efforts, three credits that can be applied to maintaining your CCPM certification will be granted when 10 or more questions are submitted.

If you are willing to help, please contact me at deputyexaminer@ccpm.ca and I will send you a question-writing guide. Deadline to submit 10 or more questions is Friday September 26th 2014.

Questions, questions, cherchons questions pour le CCPM

Renée Larouche
Examinatrice principale adjointe du CCPM

Le CCPM demande l'aide de ces membres afin d'augmenter le nombre de questions à choix multiples pour les parties I (générale) et II (Radioprotection pour les spécialités de radio-oncologie, imagerie radiodiagnostique et imagerie en médecine nucléaire; et sécurité en matière d'imagerie par résonance magnétique pour la spécialité d'imagerie par résonance magnétique) de l'examen d'adhésion des membres du CCPM. En reconnaissance de vos efforts, 3 crédits sont alloués afin de maintenir votre certification au CCPM lorsque 10 questions ou plus sont soumises.

Si vous êtes prêts à nous aider, veuillez communiquer avec moi au deputyexaminer@ccpm.ca et je vous ferai parvenir un guide sur l'écriture des questions. La date limite pour soumettre 10 questions ou plus est le vendredi 26 septembre 2014.

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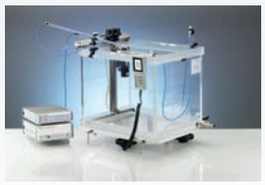
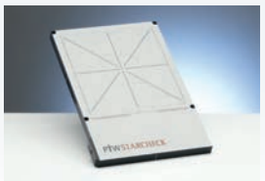
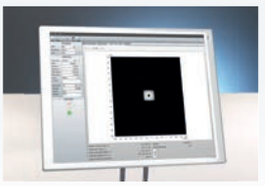
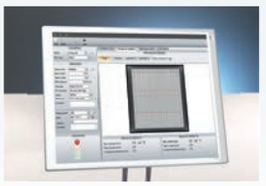
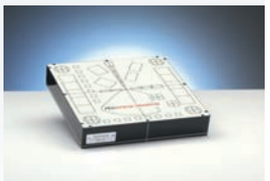

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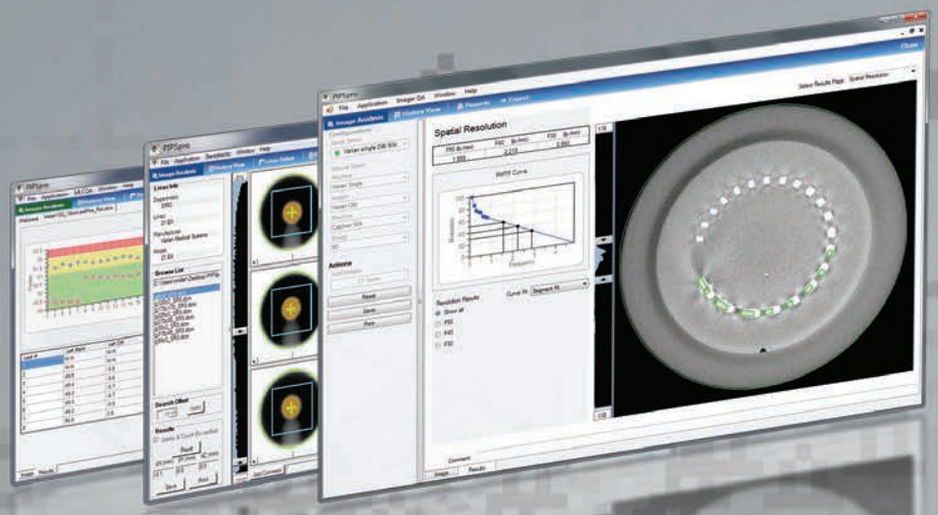

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