

CANADIAN IOM NEWS

Official Newsletter of CANM

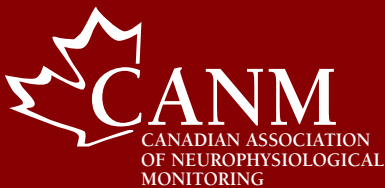
New Education Program in IOM

The year 2013 promises to be a very exciting one in the world of intraoperative neurophysiological monitoring (IOM) in Canada. At the 2012 CANM Symposium in Vancouver, David Houlden announced a bold new initiative: the CANM executive was assuming the enormous task of creating a nationally recognized professional degree program in IOM. Furthermore, this program would lead to a new national accreditation exam that would certify IOM professionals for practice in Canada. At first blush, this concept may not seem like a bold or novel concept. Many medical professions in Canada such as physicians, dentists, nurses, and physiotherapists already have institutions across the country offering professional education programs in their field. They also have national accreditation exams that act as the gateway to certification and practice. However, if you step back for a moment and count on one hand the number of IOM education programs of any kind in Canada, you will most certainly have digits left over. Now do the same for the US and yet again for the entire world. The harsh reality is that, as a recognized medical profession, IOM lags far behind our counterparts in other fields in terms of educational programs and standards.

Why does IOM education lag so far behind? The obvious answer is that it is still a young profession despite astronomical growth and maturation over the last three decades. Given the relative youth of IOM as compared to other medical professions, it is not surprising that it is still the Wild West when it comes to preparing practitioners for qualified entrance into the field. In fact, history reveals that the development of educational programs and standards is a natural phase in the gradual evolution of most medical professions. IOM is now poised to enter this important time and the most exciting part from a Canadian perspective is that we, under the careful direction of the CANM Board, are well positioned to take a leadership role.

When Dr. Houlden announced the education initiative at the CANM Symposium in 2012, background work had already begun and a blueprint for action was being developed. The need for a formal education program in IOM in Canada was obvious. What was not as obvious was how this would take shape and if any high profile Canadian institutions would be interested in partnering with the CANM to co-host a new medical professional education program. In 2011, Dr. Houlden and the board began to send out feelers to different universities, institutes, and colleges to take the temperature of their interest level. There was a very encouraging amount of uptake from several prominent academic sites, leading to open and free flowing discussions and the sharing of ideas and possibilities. Preliminary meetings were held with potential academic partners and it quickly became clear to the CANM Board that it was time to go to the “next level” and formalize the education program development process.

In the fall of 2011, the CANM Board invited a handful of veteran IOM practitioners from across Canada to participate in a weekend education retreat in Toronto. It was an exhausting two-day session and, at the end of it, a rough first draft of the education roadmap was born. It was determined that the ideal program would be offered online, in partnership with a leading educational institution and rolled out in stages – much like building a house – starting with the foundation and building the structure carefully over



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time. The foundation would consist of online learning modules on specific topics in IOM. Ten to 12 modules would comprise a complete course and a series of courses would constitute a certificate/degree program. There was considerable discussion about the exact nature of the new IOM program and whether the end goal would be to grant a certificate, BSc or MSc in IOM. It is an important question and one that will not be determined without a considerable amount of careful thought and discussion. The retreat participants parted ways at the end of the weekend with a real sense of commitment and excitement about next steps.

During 2012, the retreat group continued to discuss and share ideas but it was soon recognized that progress was slow and needed to be expedited. The CANM Board decided the best way to focus and drive the education initiative was to create an official education committee and appoint a chair to keep the momentum going. The education committee was formed in late 2012 and I agreed to act as chair – a role and challenge that I am excited to take on. The new committee picked up steam quickly thanks to the extensive groundwork already laid by David Houlden and the CANM Board. Discussions with the top prospective academic partners have quickly progressed to a very high level and we should have an official decision in the spring of 2013.

At the same time that the education program planning has been evolving, the education committee began preparation of the new IOM accreditation exam. There

are already over a hundred exam questions in the reservoir and new ones are being added regularly. There are plans for another education retreat in April 2013 and one of the priorities will be to review the submitted exam questions, compose new ones and choose the ones that best examine core competencies. It is the committee's hope that a first draft of the exam will be unveiled at the 2013 CANM Symposium in Ottawa.

The development of an IOM educational program cannot evolve in a vacuum and the committee has begun to seek input and support from stakeholders in government, hospitals, other medical professional groups, and the industry. We also are seeking input from CANM members and IOM practitioners in Canada and beyond. Support from IOM professionals is especially critical and, as chair of the CANM education committee, I encourage everyone to get involved by sharing your opinions and ideas about the new CANM education initiative. Please feel free to contact me directly at any time (susan.morris2@iwk.nshealth.ca) or send a message to the education committee via the CANM website. I look forward to hearing from you.

Susan Morris, PhD

Chair, CANM Education Committee
IWK Health Center
QEII Health Science Center
Assistant Professor (Surgery), Dalhousie University
Halifax, Nova Scotia



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The 6th Annual CANM IOM Symposium

October 4–5, 2013

Dear members and colleagues,

It is with great enthusiasm that we announce the 6th Annual CANM IOM Symposium will be in Ottawa from October 4th to 5th. This year's meeting will be held at the landmark Château Laurier Hotel and timed perfectly with the spectacular fall colors of our nation's capital.

The 6th Annual CANM IOM Symposium will provide a solid review of core concepts in neurophysiology monitoring along with recent advancements as well. This event promises cutting edge educational opportunities and will provide the opportunity for you to socialize and network with your fellow neuromonitoring practitioners and peers. We are honoured to have Dr. Francesco Sala as the keynote speaker to kick off the scientific program along with a very talented line-up of guest lecturers covering a plethora of topics in neurophysiology monitoring.

Your feedback from previous meetings is being considered as the symposium organizing committee currently works on developing this year's agenda (soon to be posted on the CANM website). The symposium breakfasts, lunches, and social event will be held in the exhibit area in accordance with CME guidelines. The success of these events is due to the generous contributions from our sponsors and exhibitors and the venue space will be arranged to allow for optimal interaction between attendees and vendors.

We look forward to seeing you in Ottawa.

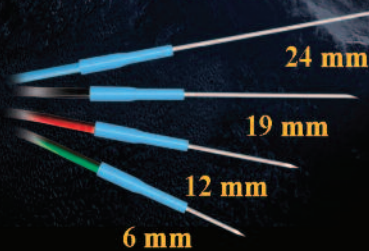
Srinivas Bulusu, BSc, CNIM, RT (EMG), RET
2013 CANM Symposium Organizing Committee
Children's Hospital of Eastern Ontario
Ottawa, Ontario



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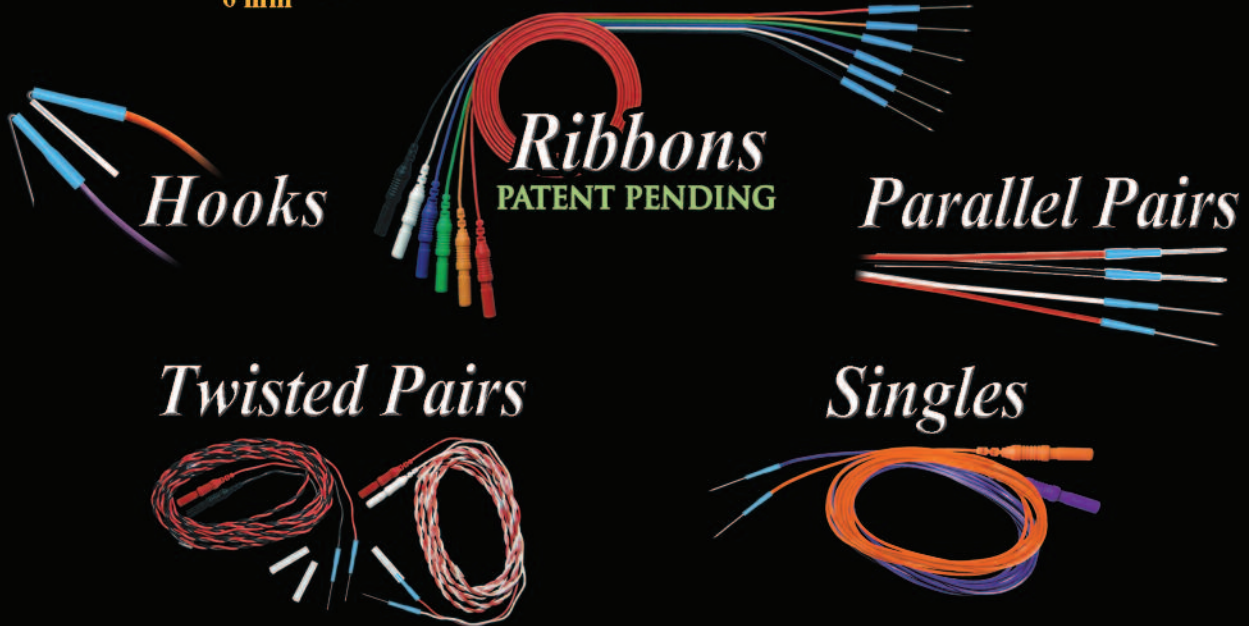
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CANM Survey 2011

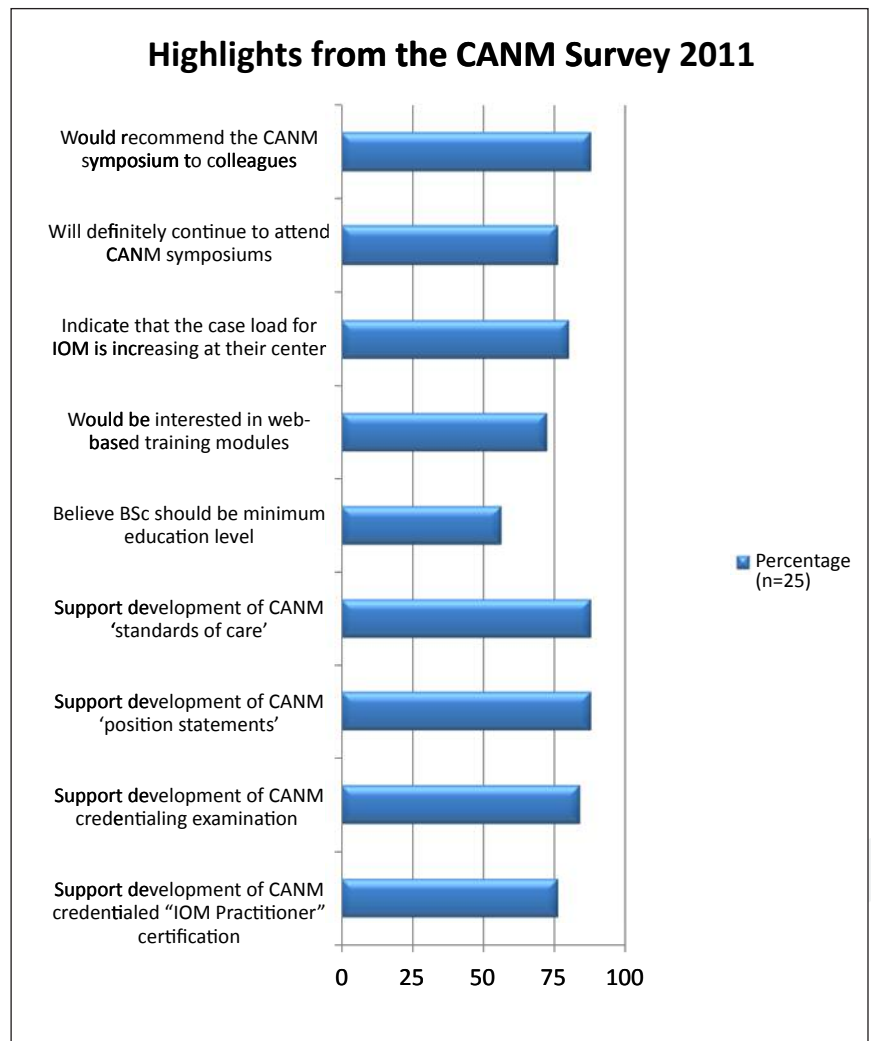
The CANM Survey 2011 was presented at the 4th Annual CANM IOM Symposium in Toronto. Participants were polled on various topics including personal information, CANM membership, CANM website, education and training, accreditation, standards and ethics, and the CANM Symposium itself. There were 25 respondents (compliance 69.44%). Some of the result highlights are presented in the graph.

CANM recognizes that not all IOM professionals are able to attend educational symposia for a variety of reasons. Since it is CANM's desire to obtain feedback on various topics related to education, accreditation, standards, etc. from all those working in the IOM field in Canada, we transitioned the CANM Survey 2011 into an online format. A link to the online survey was sent to those on our mailing list in early February that were unable to attend the 4th Annual CANM IOM Symposium in Toronto. A special thank you goes out to all those who took time from their busy schedules to complete the online survey. The information you provided anonymously through this survey will help guide CANM as we begin development of an educational and accreditation program. Results of the online survey were not available at time of publication of this newsletter.

Laura M Holmes, BScH, CNIM

Secretary-Treasurer, CANM
2011 Symposium Coordinator
The Hospital for Sick Children, Toronto,
Ontario

[Editor's note: This article was originally scheduled to appear in the first issue of *Canadian IOM News*.]



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Becoming a Leader

David Houlden, the first president of CANM, began his distinguished neuromonitoring career at Sunnybrook Health Science Centre and created the hospital's neuromonitoring department more than 26 years ago. When Dave recently accepted a new position at The Ottawa Hospital, I took over his role of leading the neuromonitoring department at Sunnybrook Health Science Centre – some pretty big shoes to fill. It has often been a challenge trying to keep the shoes from falling off! It is not easy, the laces have come undone a number of times and will continue to do so because as most of you know, the field of neuromonitoring is anything but predictable.

Two weeks after Dave left Sunnybrook Health Science Centre I met with five different hospital managers and directors. These sessions gave me the opportunity to get to know my hospital administrators even better, but they also highlighted Dave's iconic status at Sunnybrook and reinforced how much he would be missed! Shortly after I took lead of the neuromonitoring department, as fate would have it Murphy's Law appeared. An array of things went wrong – staff shortage, equipment melting (no joke, it actually melted during sterilization), an MEP stimulator malfunction, an IOM machine breakdown, delays in equipment repair, and having to adjust our repertoire of IOM tests to keep up with industry standards across Canada. All of this had to be dealt with all the while ensuring that my department performed safe and effective neuromonitoring. Every Monday I felt like I was getting things under control but by Thursday, chaos would reappear. It is daunting becoming the leader of a neuromonitoring department and I could continue in detail about all of the things that went wrong but that would fill every page of this newsletter. Instead, I have comprised a “Coles Notes” list of tenets that helped me through my transition and I hope this list may be beneficial to those who may find themselves in a similar position.

- Be a very thirsty sponge in absorbing information from any and all sources – remember every day is a school day.
- Know your sales representatives and know the information about the companies you order supplies from. This can be the difference between getting things done right away if you have issues with their product, or having to spend days working your way through the company's sales and support hierarchy before you find the correct person to deal with.
- Know who handles your purchase orders, this will

save you time when trying to locate and find the status of an important order.

- Make friends with whomever you come in contact with – managers, directors, nurses, surgeons and co-workers. You never know who you will need help from in a pinch or on a daily basis.
- Keep your director/manager up-to-date on how the department is performing and current issues – everything from equipment problems to overtime numbers and future staffing risks. An open line of communication is extremely important.
- Be approachable, this allows issues not to fester and conflicts to be easily resolved.
- Know and contribute to the neuromonitoring community. This is invaluable. Having this network of people to reach out to helps in everything from trying a new test to problem solving to seeing how you can improve your services.
- Foster relationships with the surgeons where they value the department's services and respect your contribution in helping them treat their patients. This facilitates trying new IOM tests, discussing surgeries, and improving services.

I am still working on a number of these points but another factor that helped me tremendously with my new role is my colleagues. I am extremely lucky to have co-workers who are approachable and allow for constructive discussions and dialogue. I have a very supportive director, who is a champion of my department and is always willing to listen and learn more about the field of neuromonitoring. I am also fortunate to work with a team of surgeons who are accessible and keen on better understanding the benefits and limits of neuromonitoring. Last but not least are Dave and the neuromonitoring community in Toronto, Canada. They have a wealth of knowledge and years of experience I can always depend on.

I hope that my shared experiences will resonate with those who have assumed a leadership role of a neuromonitoring department and help others who may be taking on a similar position in the near future. As for me, I am standing on my own two feet with my shoes laced up (although my feet still slide around inside these big shoes). No equipment has broken in over two weeks! As a leader, you learn to appreciate the small things.

Samantha Robertson

Sunnybrook Health Science Centre
Toronto, Ontario

Did You Know...?

BRINGING A NEW IOM MACHINE INTO THE OPERATING ROOM

The process of purchasing a new Intraoperative Neurophysiological Monitoring (IOM) machine can be a long and arduous process. After funding has been approved and a company secures the contract, a purchase order is executed. It may take a minimum of 6–8 weeks or longer for the hardware and accessories to be transported. Once the IOM machine is on site, there are multiple considerations to bear in mind.

Assembling the IOM Machine

In most cases, the company that secures the contract will provide a trained clinical specialist to assemble the IOM machine and train the neuromonitorist(s).

In conjunction with the clinical specialist, the Biomedical Engineering department is often involved in this process as well. New IOM machines arrive disassembled requiring the clinical specialist or the biomedical engineering technician to assemble the hardware and load the software onto the machine. Afterwards, a biomedical engineering technician usually performs a required diagnostic check to look for current leakage that meets or exceeds Canadian Standards Association (CSA) regulations. In addition, an inventory of all hardware and its components (or extra equipment) should be completed to ensure that all items specified in the purchase order arrived. It may take a full day to do all of the above. It is important to note that some companies consider the time spent preparing and assembling the IOM machine part of the training period, which means less time dedicated for training.

When to Bring the Machine Into the Operating Room

If the clinical specialist is conducting the training in the operating room (OR), many hospitals have policies regulating observers in the OR. If observer permission is required, it should be obtained prior to the arrival of the clinical specialist and for the duration of the training period. It is probably a good idea for the clinical specialist to do an initial run-through with the neuromonitorist trainee(s) of the new machine's hardware, connections, and functions outside of the OR. When the trainee is comfortable with the set-up,

then the IOM machine can be transported into the OR.

Designing Neurophysiological Monitoring Tests On the IOM Machine

Although IOM machines arrive preloaded with programmed tests, it may be beneficial to design your own multimodality neurophysiological monitoring tests to aid in understanding the new IOM machine. Depending on the knowledge of the trainee, tests can be designed with the help of the clinical specialist. If more than one IOM machine is purchased, it may be a good idea to design and finalize tests on one machine first and then copy them over to the second machine. This helps to avoid confusion when programming multiple tests. With the flexibility of the new 32-channel IOM machines, the neuromonitorist can be creative when programming multiple multimodalities to run simultaneously. After the tests are finalized, they should be marked read-only to prevent accidental changes made to the master copy.

After the Training Period is Over

If the length of the training period is insufficient, additional training days may be requested. The goal during the training period is to allow the neuromonitorist to become proficient with the new IOM machine. The clinical specialist must provide contact information for any follow-up questions or subsequent problems arising from the use of the IOM machine. Once all parties involved are satisfied with the setup of the IOM machine, its hardware/accessories, and the training period, the last phase of this process is the release of payment to the company. Payment is typically released in stages over the following months. This is an assurance that the IOM machine continues to meet expectations. Despite the many steps in the process, remember the overall objective is to purchase an IOM machine that is as good or even better than older IOM machine models your department currently owns.

Nancy Lu, HBSc, CNIM

Toronto Western Hospital, University Health Network
Toronto, Ontario

Quick Poll

How would you categorize your past experience of integrating a new IOM machine into your practice?

- a) Effortless
- b) Problematic
- c) Extremely Challenging



[Take the Quick Poll & View Results](#)

Results from the Last Quick Poll

Does your IOM department participate in the Surgical Safety Checklist at your hospital?

Yes	-----	100%
No	-----	0%
Occasionally (Not Consistent)	-----	0%

National Neuromonitoring Project

The Canadian Paediatric Spinal Deformities Study Group (CPSSG) is the study group to which most Canadian pediatric spine deformity surgeons belong. The group has been a strong supporter of neurophysiological monitoring in Canada. As part of its ongoing mandate to promote research, it is funding a pilot study aimed at understanding the circumstances surrounding neurophysiological changes during spine deformity surgery.

The initial funding will enable us to develop a secure database and allow us to collect data from (hopefully) all of the spine surgeries in the country. This project is important in helping us understand the most high-risk

portions of spine deformity surgery and the mechanisms of any injury at each stage.

This pilot study is a key demonstration of the collaborative relationship that exists between CANM and CPSSG. This is the sort of research for which the Canadian environment is ideally suited. Those involved in monitoring pediatric spine deformity will be learning more about this project in the coming months.

Jonathan Norton, PhD
President, CANM
University of Saskatchewan
Saskatoon, Saskatchewan

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