

President's Message



Mark your Calendar for the 2013 CAS Annual Meeting

Following on the successes of the 2012 Annual Meeting in Quebec City, the Annual Meeting Committee (chaired by Dr Daniel Bainbridge) is already hard at work in preparing for the 2013 Annual Meeting when CAS members will gather in Calgary from June 21 – 24. I encourage you to reserve the dates and plan to be there!

The Committee has planned a high quality scientific and educational program, excellent networking opportunities and, of course, various social events. Please read Dr Bainbridge's Annual Meeting Committee report in this newsletter to find out more about what to expect at the 2013 Annual Meeting.

Calgary awaits us with its renowned western hospitality and its reputation for making visitors feel welcome. I look forward to seeing you at the 2013 CAS Annual Meeting.

Dr Angela Enright: An Inspiration and a Role Model

On behalf of all CAS members, I would like to express our collective "congratulations" to Dr Enright in being recognized by the American Society of Anesthesiologists at its Annual Meeting in October in Washington, DC. Receiving the 2012 Nicholas M Greene, MD Award for Outstanding Humanitarian Contribution is truly inspiring!

Dr Donald R Miller, CJA Editor-in-Chief, to "Retire" in December 2013

After nine years (two terms) as the *Canadian Journal of Anesthesia's* Editor-in-Chief, and approximately 4,500 manuscripts, Dr Miller has advised CAS that it is time for a change. He has been a significant force in shepherding the *Journal* in advancing the body of scientific knowledge and education in anesthesiology, and his guidance and wisdom will be missed. We wish him the best.

I wish you and your family a happy, healthy holiday season.

Dr Patricia Houston, FRCPC
President, CAS



Get Ready For The CAS Annual Meeting In Calgary

*By Dr Daniel Bainbridge, FRCPC
Chair, Annual Meeting Committee*

The CAS Annual Meeting Committee's primary objective is to help with the planning and execution of the Society's annual meeting. Committee members represent many areas of our profession and contribute countless hours of their time. Planning includes both the scientific and technical programs, as well as social and other activities.

I am very pleased to report that plans are well underway for the 2013 Annual Meeting to be held in Calgary from June 21 - 24 at the Telus Convention Centre. Detailed information will be coming out early in the new year.

continued on page 2

Canadian Anesthesiologists' Society • www.cas.ca

Innovative leadership and excellence in anesthesiology, perioperative care, and patient safety



In This Issue

President's Message	1
Get Ready For The CAS Annual Meeting In Calgary	1
The Self Assessment Program from the Canadian Journal of Anesthesia — CPD Online.....	3
CAS Research Program Now Open	4
2013 Abstracts Submission Deadline.....	4
CAS Board Policy Manual Now Online	4
News from the Continuing Education and Professional Development Corner	5
Resident Report from Dr Geneviève Lalonde.....	6
News From Research: Progress Reports.....	7
Remembering Dr Bruce Knox.....	9
2013 Anesthesia For Global Outreach Course ..	11
CAS Member Receives Royal College Award ..	11
Rwanda: Experience of a Lifetime.....	12
Ethical Decision-Making In The Distribution Of Scarce Resources	14
Recognizing Our Global Oximetry Project Donors.....	15
Four Notable Canadian Women in Anesthesia..	17

Here's a sneak preview of some exciting initiatives we're working on.

Theme: New Developments in Anesthesiology

New for 2013: Wi-Fi throughout the facilities in which CAS Annual Meeting sessions, workshops, etc. will be offered.

Highlights from the Speaker List (to date): Dr Misha Perouansky, Professor of Anesthesiology, Department of Anesthesiology, University of Wisconsin School of Medicine and Public Health in Madison, WI, has accepted the invitation to speak at the Ross C Tyrell Lecture. Also confirmed are Dr Albert Cheung, Professor of Anesthesiology and Critical Care, University of Pennsylvania, and Dr Adrian Gelb, Professor of Anesthesiology, University of California San Francisco.

Expanded Use of i>clicker Technology: Feedback from previous conferences where this technology has been offered has been very positive. The interactive aspects, as well as ease of use, will again enhance the learning experience.

President's Dinner Moved to Saturday Night: Based on attendee feedback from past Annual Meetings, the President's Dinner will now be held on Saturday rather than at the end of the last day. We look forward to seeing you there in 2013 and there are no excuses for not attending!

It's not all Business! When you are planning your trip to Calgary, consider family and recreational opportunities, given the close proximity of numerous sights and points of interest such as Banff, Canmore, the Rockies, Drumheller... the list is endless. We suspect that family members will find plenty of interesting things to see and do in Alberta.

The Committee's Work Continues

Going forward, the Committee will be busy with finalizing many details over the next few months and will be assessing ideas and options in order to deliver a memorable Annual Meeting to CAS members. We look forward to seeing you in Calgary next June.

2012/2013 Board of Directors

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Invited Guests

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RCPSC Rep	Dr Michael Sullivan, Aurora

You may contact members, representatives, and invited guests of the Board of Directors through the CAS central office.

Editor-in-Chief	Dr Salvatore Spadafora
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Thank You to All Glottis Cup Challenge Participants

Over the years, the Glottis Cup Challenge has entertained the spectators and honoured the runners. It's time to move forward with other ideas and so this event will not be held in 2013.

A sincere "thank you" to all who have participated over the years!

The Self Assessment Program from the Canadian Journal of Anesthesia — CPD Online

NEW CPD MODULE: Massive transfusion in the trauma patient
(December 2012)

ALSO AVAILABLE

- Competency-based professionalism in anesthesiology (**September 2012**)
- Fluid and vasopressor management for Caesarean delivery under spinal anesthesia (**June 2012**)
- Postoperative delirium: risk factors and management (**March 2012**)
- Airway management in the patient with potential cervical spine instability (**December 2011**)
- Anesthetic management of patients with an anterior mediastinal mass (**September 2011**)
- Assessment and treatment of preoperative anemia (**June 2011**)
- Perioperative glucose control: living in uncertain times (**March 2011**)

HOW TO ACCESS THE MODULES

Instructions can be found on the Canadian Anesthesiologists' Society website at: <http://cas.ca/Members/CPD-Online>

Successful completion of each module of the self-assessment program will entitle readers to claim four hours of continuing professional development (CPD) under section 3 of CPD options, for a total of 12 maintenance of certification credits. Section 3 hours are not limited to a maximum number of credits per five-year period.

Publication of these modules is made possible through unrestricted educational grants from the following industry partners:



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FRESENIUS
KABI

CAS Research Program Now Open

DEADLINE: FRIDAY, JANUARY 11, 2013 – 16:00 EST

The online submission website of the CAS 2013 Research Program, Operating Grants and Career Scientist Award is open. All applications must be submitted using the CAS online submission website before the **deadline of Friday, January 11, 2013 at 16:00 EST.**

Research Grants and Awards

- **CAS Career Scientist Award in Anesthesia**
The Career Scientist Award provides partial salary support over two years to fund protected research time. This award is offered every other year and is available in 2013 for funding over 2013-2014.
- **New Investigator Operating Grants**
 - Abbott Laboratories New Investigator Award in Anesthesia
 - Baxter Corporation Canadian Research Award in Anesthesia
 - Canadian Anesthesiologists' Society Research Award
- **Subspecialty Operating Grants**
 - Dr Earl Wynands/Fresenius Kabi Research Award
 - CAS Research Award in Neuroanesthesia *in memory of Adrienne Cheng*
- **Open Operating Grants**
 - Dr R A Gordon Research Award
 - **NEW!** The *Canadian Journal of Anesthesia* Research Award
- **Residents' Research Grant**
 - CAS/LMA-Vitaid Residents' Research Grant

For more information, go to: www.cas.ca/English/Awards-and-Grants

2013 Abstracts Submission Deadline:

MONDAY, JANUARY 21, 2013 16:00 EST

Applicants are invited to submit their Abstract and/or Case Reports/Series to the Canadian Anesthesiologists' Society's 2013 Annual Meeting. The meeting will be held at the Telus Convention Centre in Calgary, Alberta, from June 21 – 24, 2013.

Submission deadline: Monday, January 21, 2013 16:00 EST

For more information, go to: <http://www.cas.ca/English/Abstracts>

CAS Board Policy Manual Now Online

To view the CAS Board Policy Manual, go to: <http://www.cas.ca/Members/Reference-Documents>

CJA ABSTRACTS SUPPLEMENT NOW AVAILABLE

Go to: <http://www.springerlink.com/content/0832-610x/58/s1/>

COMING UP....

California Society of Anesthesiologists' 2013 CSA Winter Hawaii Anesthesia Seminar – January 21 – 25, 2013
[more info](#)

News from the Continuing Education and Professional Development Corner

By Dr Martin Van Der Vyver, FRCPC

Chair, Continuing Education and Professional Development Committee

How Anesthesiologists in Canada Earn MOC Credits

Ever wondered how your anesthesiology colleagues are staying current and earning their credits? According to statistics released by the Maintenance of Certification (MOC) program from the Royal College of Physicians and Surgeons of Canada (RCPS), 92% (n=2464) of anesthesiologists practicing in Canada participated in the MOC program in 2011. The table below provides detail on the activities undertaken by anesthesiologists and then submitted for credits. Note that the activities listed are only those which earned the highest number of credits in each section and the list is therefore far from complete.

Section	Unique Fellows	Credits	Participation Rate (%)
1- Group learning			
Accredited conferences	2,120	496,096	82
Rounds	1,903	248,840	74
Small group sessions	925	53,774	36
2. Self-learning			
Personal learning project	1,499	363,828	58
Journal reading	1,295	47,796	50
Other system learning	770	211,461	30
3. Assessment			
Self-assessment program	592	174,951	23
Practice assessment	555	83,781	22
Simulation	178	16,769	7

The 92% participation rate was similar across all specialties in Canada for those anesthesiologists registered with the Royal College of Physicians and Surgeons in the MAINPORT program. One of the goals of the new MOC program is to significantly increase participation in assessment activities through incentives (3 times the credits earned, based on time compared to group learning activities).

Mobile MAINPORT

The RCPS has released a free application compatible with the iOS, Android and Blackberry platforms.

It provides a fast and convenient way to document continuing professional development (CPD) as it happens, no matter how far away you are from your desk-top computer.

Through this application, you can:

- Submit continuing professional development activities for credit right away;
- Modify or delete activities;
- Document learning outcomes across your activities submitted for credit;
- Review your "Holding Area" where all of your uploaded and incomplete activities – or those awaiting validation – are kept and saved;
- Review all of your completed activities;
- Access the MOC program framework and guides;
- Access support resources (e.g., FAQs); and
- Access contact information for support staff.

Needs Assessment 2013

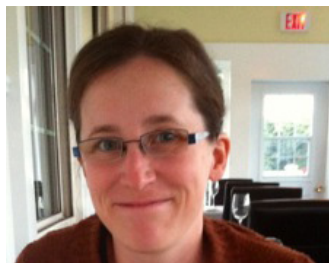
The CAS will survey its membership again in early 2013 to get your input into the CPD needs of our members. This provides valuable information for those involved in organizing the Annual Meeting and the CJA CPD modules. With the widespread use of e-learning, the increasing importance of simulation and the move towards assessment credits, the CAS needs to know how to best meet your educational goals and needs, and be relevant to all our members while at the same time striving to be innovative.

CEPD COMMITTEE SEEKS NEW MEMBERS

The CAS' Continuing Education and Professional Development (CEPD) Committee (chaired by Dr Martin Van Der Vyver) is looking for new members, in particular a representative from a community hospital. If you are interested in making a contribution to your profession, please consider joining the committee. Contact Joy Brickell at admins@cas.ca or 416-480-0602 (ext. 20).

Resident Report from Dr Geneviève Lalonde

Dear fellow anesthesiologists:



I am currently in my fourth year of Residency in anesthesia at Université Laval, in Quebec City. I had the opportunity to represent the Canadian Residents at the American Society of Anesthesiologists' (ASA) Meeting held in Washington from October 13 to 17. This was made possible thanks to my involvement last year as a representative of the Canadian Residents within the Canadian Anesthesiologists' Society's Executive Committee.

On the very first day of the Meeting, I was able to attend the American Residents' annual meeting. I had the opportunity to listen to several conferences and meet a few American Residents. I noticed a few differences in the work organization as well as in the attitude of our southern colleagues.

First of all, each state is represented by a certain number of delegates. The number of delegates seems proportional to the number of Residency programs within each state. Being a delegate and the related involvement are viewed with positive eyes in the American system. An elaborate election system takes place every year in order to choose the new Executive Committee for Residents. Compared to what I've seen on our side of the border, involvement, as a Resident, is highly promoted. Furthermore, American Residents are very active on their website and on social networks. They also write a column in each issue of the ASA newsletter.

Secondly, a few speakers caught my attention during the meeting. First, the president of the American Academy of Anesthesiologist Assistants (AAAA) described their role and work in the OR to the Residents. She emphasized that the AAs weren't there to compete with or replace anesthesiologists, but rather to collaborate with them in order to enhance the quality of patient care. I had to smile – collaboration between Residents and respiratory therapists in Que-

bec is well developed, although the level of responsibility of RTs and AAs is not exactly the same.

Then, a few speakers emphasized the importance of being an ASA member in the Residents' future practice, explaining each of the roles the ASA plays in education, patient safety and jurisdiction. These speakers' objective was to convince the delegates to promote the ASA among the Residents of their respective programs. The speakers also tried to motivate the delegates to be active at higher levels, such as in their state or at the federal level. In fact, one speaker used to be an anesthesiologist but is currently involved in politics. All in all, I was surprised by the positivism and conviction of the presentations I heard.

In addition, American Residents are faced with realities similar to ours, such as drug shortages from certain pharmaceutical companies and some of the difficulties of Residency. Their choice of practice is also different – at least from that in Quebec. As a matter of fact, a symposium was dedicated to the choice of an academic versus a private career. A carrier in the private sector implies realities that we are not faced with as Canadian Residents, such as negotiating a work contract or dealing with the firm's lawyer during group meetings.

In addition to the Residents' Annual Meeting, the ASA Meeting was also an excellent opportunity to attend presentations on various anesthesia-related topics, to visit the exhibitors' fair in order to see the new technical innovations for anesthesia and to read research posters.

I also had the chance to become better acquainted with a few historic events in the Smithsonian Museum in Washington as well as to visit some of the landmarks of the American capital.

I would like to sincerely thank the Canadian Anesthesiologists' Society for the opportunity I was given to live such an enriching experience.

Dr Geneviève Lalonde is a 4th year Resident at the Université Laval in Quebec.

News From Research: Progress Reports

2010 CAS/Abbott Laboratories Ltd Career Scientist Award in Anesthesia

Dr Marcin Wasowicz

University of Toronto and
Toronto General Hospital
Toronto, ON



Expanding the role of the anesthesiologist beyond the operating room:

1. The association between platelet inhibition and major adverse cardiac events in patients undergoing non-cardiac surgery after previous percutaneous coronary intervention
2. Use of volatile anesthetics within ICU settings. Comparison of volatile anesthesia and postoperative sedation vs. intravenous anesthesia and postoperative sedation in cardiac surgical patients.

Final Report – July 2012

The CAS Career Scientist Award provided financial support for 2-3 days a week of research/academic time to conduct 2 large prospective studies and several investigations studying applications of solid phase microextraction in clinical medicine. The Department of Anesthesia of the University of Toronto and Toronto General Hospital/University Health Network provided the matching funds.

The first study was coordinated by the receiver of the Award and initially involved 3 Canadian Centers, which currently are recruiting patients. Starting from January 2011, the study was expanded to other centers – Toronto Western Hospital and Mount Sinai Hospital. In August 2011, we started to recruit patients in Juravinsky Hospital in Hamilton. London Center applied to the local Ethical Committee for extension in Victoria Hospital – expected start of recruitment was the beginning of 2012. Up to date, we have recruited 162 patients and 141 patients had already undergone surgery. Fifty-four patients finished a follow-up interview (last part of the study). Our recruitment was progressing slower than anticipated; therefore we analyzed the causes of delay and undertook several steps to improve our process – the results of this analysis were submitted with the previous report. I also applied to the Anesthesia Patient Safety Foundation for a one-year of extension (end of 2012), which was granted during the ASA meeting in Chicago (October 2011). The anticipated time to finish the study is the end of 2012/beginning of 2013.

More than 21% of patients developed post-operative complications in the form of a major adverse cardiac event (MACE). We have noticed that in several patients who were not taking clopidogrel Platelet Mapping Assay indicated inhibition of ADP pathway. Therefore, we decided to initiate a sub-study, which is comparing platelet testing with the use of 2 methods: Platelet Mapping Assay and PlateletWorks. The analysis of association between inadequate platelet inhibition and MACE will be conducted at the end of the study.

One of the co-PIs of the study, Dr Summer Syed, presented a lecture on monitoring platelet function in post-stent patients during the peri-operative period during the Annual Ontario Anesthesia Meeting (September 2011). Preliminary results of this study were presented during the PACT meeting in January 2012. The recipient of the Award was invited by the Scientific Affairs Committee of the CAS Annual Meeting in Quebec City (June 2012) to present a lecture on peri-operative management of patients undergoing non-cardiac surgery after previous stent(s) implantation. Additionally, preliminary results presented during the same meeting received a first award as the best cardiac anesthesia research presentation (Cardiac Complications in Post-PCI Patient Undergoing Non-cardiac Surgery – the CVT Raymond Martineau Prize, presented to Tenille Ragoonanan).

The second study compared combined volatile-based anesthesia and postoperative sedations to intravenous anesthesia and postoperative sedation in cardiac surgical patients. The design of this prospective, randomized trial allows us to investigate the potential benefit of the clinical use of volatile induced pre- and post-conditioning. It is also the first North American study investigating the use of volatile-based sedation within ICU settings. Study recruitment was finished in September 2011. We recruited 173 patients. One hundred and fifty patients were randomized and had already undergone surgery, 11 patients were excluded from the study and 139 patients were analyzed. The Abstract submitted to the Canadian Critical Care Forum (November 2011) has been chosen among six best research projects. Findings of the study showed that combined volatile-based pre- and post-conditioning does not translate into clinical practice, however indicated that volatile-based sedation results in faster extubation of cardiac surgical patients. We are currently preparing 2 manuscripts for publication; one manuscript is already submitted. Final data were also presented during the Annual Meeting of the

continued on page 8

Society of Critical Care Medicine (Houston, February 2012) and the World Congress of Anesthesiologists (Buenos Aires, March 2012).

Additionally, the concept of volatile-based sedation developed in our institution gained some interest in Canada and outside of the country. It resulted in invitations to present lectures during conferences and as a visiting professor:

1. Ontario Anesthesia Meeting, Toronto, October 3, 2010
2. Second International Cardiology Conference, Shanghai, December 7-9, 2010.
3. Department of Anesthesia and Critical Care, Jikei University, Tokyo, December 11
4. Department of Anesthesia, Tokyo Women Medical University, Tokyo, December 13
5. Department of Anesthesia and Critical Care, Medical Faculty of Oita University, December 15
6. Department of Anesthesia and Critical Care, Kielce Regional Hospital, Poland (January 2011)
7. Department of Anesthesia, South Lake Hospital, Newmarket (March 2011)

The Award received from the CAS also allowed me to further investigate how we, as anesthesiologists, can expand our role beyond the operating theater. I have established research cooperation with the Department of Chemistry at the University of Waterloo and the Department of Pharmacology at the University of Toronto. Starting from December 2010, I am also cross-appointed as Adjunct Professor at the University of Waterloo. Our cooperation is aiming at introducing solid phase extraction (SPME) into the field of clinical medicine. SPME is a widely used technique within the fields of food technology, environmental and biological analysis. However, SPME use in clinical medicine has been poorly studied.

Potential advantages of SPME over the currently used analytical techniques include: simple sample preparation, rapid analysis of multiple substances, drugs and drug metabolites using a minimal sample volume. Comparing to older methods, it possesses features that allow "in vivo" measurements, which were not possible in the past. Among them, the most important are: rapid turnaround time, extraction of unstable metabolites with ultra-short half-time and bedside analysis (2-3h) permitting individually tailored drug dosing and simultaneous measurement of multiple substances. To further explore the clinical potential of SPME, we are currently conducting a series of studies within the different sub-specialties of medicine. This project will allow us to investigate advantages of SPME over the currently used standard methods and focus on applications which have not been previously explored. Their objectives are presented below.

- a. To measure levels of tranexamic acid in cardiac surgical patients with a different degree of kidney dysfunction and liver transplant recipients. The degree of kidney injury will be defined according to criteria developed by the American Society of Nephrology.
- b. To formulate a pharmacokinetic model of tranexamic dosing in cardiac patients with kidney dysfunction and liver transplant recipients.
- c. To validate the use of SPME as an analytical tool measuring levels of tranexamic acid, rocuronium bromide and metabolomic profile of cardiac surgical patients and liver transplant recipients.
- d. To use SPME measurements of rocuronium bromide (solely metabolized by hepatic enzymes) as a monitoring tool to assess function of newly transplanted liver. Differences between different grafts will be analyzed (livers obtained from young vs. old donors, living related donors vs. cadaveric donors). Introducing SPME into medical practice may help to promote safety and improve our practices. At the very least, this study will familiarize clinicians working in different sub-specialties with a novel technique with vast potential for future studies.

Additionally, a paper entitled "Pharmacokinetics of Tranexamic Acid in Patients Undergoing Cardiac Surgery" was selected among six best research papers for the Richard Knill Competition held during the 2012 CAS Annual Meeting.

Our first results were published.

1. Bojko B, Cudjoe E, **Wąsowicz M**, Pawliszyn J. Solid phase microextraction-in vivo and on-site analysis. How far are we from clinical practice? *Trends in Analytical Chemistry* 2011; 30:1505-1512.
2. Bojko B, Vuckovic D, Cudjoe E, Hoque E, Mirnaghi F, **Wąsowicz M**, Jerath A, Pawliszyn J. Determination of tranexamic acid concentration by solid phase microextraction and liquid chromatography-tandem mass spectrometry. First step to in vivo analysis. *Journal of Chromatography B Analytical Technology Biomedical Life Science* 2011; 879: 3781-87.
3. **Wąsowicz M**, Jerath A, Bojko B, Sharma V, Pawliszyn J, McCluskey S. Use of a novel technique of solid phase microextraction to measure concentration of tranexamic acid in patients undergoing cardiac surgery. *Canadian Journal of Anesthesia* 2012; 59:14-20.
4. Fan J, Jerath A, Pang KS, Bojko B, Sharma V, Pawliszyn J, McCluskey S, **Wąsowicz M**. Pharmacokinetics of tranexamic acid on cardiopulmonary bypass. *Anaesthesia* – 2012; 67:1242-1250.
5. Wijesundera DN, Wijesundera HC, Yun L, **Wasowicz M**, Beattie WS, Velianou JL, Ko DT. Risk of elective major non-cardiac surgery after coronary stent insertion: a population-based study. *Circulation*. 2012 Sep 11; 126(11):1355-62.
6. Pickworth T, Jerath A, DeVine R, Kherani N, **Wasowicz M**. The scavenging of volatile anesthetic agents in the cardiovascular intensive care unit environment: a technical report. *Canadian Journal of Anesthesia* 2012 – epub (DOI 10.1007/s12630-012-9814-5).

Generous Bequest to CARF from Dr Bruce Knox's Estate

Following Dr Bruce Knox's passing earlier this year, CARF was the recipient of a generous bequest in the amount of \$397,253. Dr Knox was a long-time supporter of CARF and CARF is grateful for the bequest.

In remembrance of Dr Knox's long career as an anesthesiologist, Drs Hare, Mazer and Houston reflect on his contributions to the profession.

Dr Bruce Knox: An Exceptional Anesthesiologist with a Passion for Clinical Excellence, Fast Cars and Anesthesia Research

Dear Colleagues:

It is with mixed emotions of sadness, fondness and admiration that we recognize the contributions of Dr Bruce Knox, one of our finest anesthesia colleagues and long-time supporter of CARF, who passed away earlier this year.

Many of us knew Dr Knox as an exceptional colleague, educator and clinician who provided excellent clinical care in anesthesia for almost four decades. We were greatly fortunate that most of his long career was spent at St Michael's Hospital within the University of Toronto. As such, countless patients, students and colleagues alike gained the benefit of Bruce's passion for clinical excellence and education. At the time of his retirement in 2010, Bruce stated that he felt privileged that his career had spanned such a dynamic and innovative time in anesthesia. Indeed, Dr Bruce Knox was a great contributor to that climate of innovation, through his clinical work and long-standing support of CARF.

It was often remarked that Bruce Knox was one of the most consistent long-standing supporters of anesthesia research through his ongoing donations to CARF. In addition, Bruce was a frequent attendee at academic

rounds and often provided insight to presented research as guided by his extensive experience in the operating room. Bruce's generosity and support of research have continued to this day and culminated in a most generous donation to CARF at the time of his passing. All recipients of funding from CARF and the CAS know the lasting value of such an endowment.



1942 - 2012

Bruce's enduring passion for life and the things he valued most is exemplified by the manner in which he lived. Bruce provided enduring dedication to his family, friends and colleagues throughout his career. For over three decades, Bruce traveled annually to Grand Prix races around the world, reaching every continent and watching victories from the days of Fangio to the current champion, Vettel. He followed Formula One with great passion his entire life. His passion for supporting anesthesia research was no less vigorous. Bruce's strong and lasting support of CARF

will produce a legacy of successful Canadian anesthesia research for many decades to come.

Thank you, Bruce, for all that you have done for our profession!

In fond memory and with great appreciation,

Dr Gregory Hare, FRCPC
Anesthesiologist
Associate Professor
Department of Anesthesia
St Michael's Hospital
University of Toronto

Dr David Mazer, FRCPC
Vice Chair
CAS Research Advisory Committee

Dr Patricia Houston, FRCPC
President
Canadian Anesthesiologists' Society

"Dr. Bruce Knox made a life-long and significant commitment to supporting CARF. He believed that research and innovation lead to better patient care. Please help to realize his dream."



Patricia Houston,
Professor, Dept. of Anesthesia,
University of Toronto

A handwritten signature in black ink that reads "Patricia Houston".

Our profession
deserves a firm
foundation

CARF

Canadian Anesthesia Research Foundation
La Fondation canadienne de recherche en anesthésie

www.anesthesia.org/carf

2013 Anesthesia For Global Outreach Course



MAY 16-19, 2013
SEATTLE, WA

Supported by an experienced international faculty from Australia, Canada, Uganda, UK, and the USA, we would like to announce the **Sixth Annual Anesthesia for Global Outreach Course, 2013**. The program will teach skills necessary to practice anesthesia in austere environments, and is run in collaboration with other worldwide outreach anesthesia courses. It is the only course of its kind in North America, and will be hosted by the University of Washington in Seattle.

The Anesthesia for Global Outreach Course is designed to assist volunteers travelling to developing countries or austere environments for service or capacity development in anesthesia and critical care. It is intended primarily for anesthesia care providers, but is also relevant for all involved in peri-operative medicine and critical care. Course participants will have the opportunity to consider intellectual, technical, psychological, and ethical aspects of outreach anesthesia work in conditions that they are unlikely to have encountered in their training or daily practice.

This four-day course includes personal insights from faculty experienced in these environments, as well as current topics in global health-related issues. Practical sessions include equipment use and maintenance, hands-on simulation, and use of unfamiliar anesthesia technologies. Participants will have ample opportunities to engage with expert instructors who are experienced in working in a broad variety of contexts. Participants will also attend sessions on tropical disease, cross-cultural adaptation, and travel preparation. In addition, the program will enable anesthesia providers to better transfer their knowledge and build capacity when undertaking global missions.

Please contact the course administrator, Megan Chipp, or the course directors, Tony Roche, Gerald Dubowitz or Faye Evans, at globalanesthesiacourse@gmail.com to learn more about the course.

CAS Member Receives Royal College Award

Congratulations to CAS member, **Dr Homer Yang**, on receiving the 2012 Royal College of Physicians and Surgeons of Canada's Mentor of the Year Award (Region 3).

Dr Yang is the Head of Anesthesiology at the Ottawa Hospital and is also the Professor and Chair at the Department of Anesthesia, University of Ottawa. From 1996 – 2001, Dr Yang was chair of the Anesthesia Examination Board at the Royal College of Physicians and Surgeons of Canada and has also been the recipient of a number of other teaching awards in the past. Currently, Dr Yang is the Chair of the CAS Allied Health Professions Committee.



Rwanda: Experience of a Lifetime

By Dr James Kim, FRCPC

Clinical Assistant Professor, UBC Dept. of Anesthesiology, Pharmacology and Therapeutics
Staff Anesthesiologist, Lion's Gate Hospital

Arrrrrggh! It's 5 am and I haven't been able to sleep more than three hours. The time difference is 10 hours between Kigali, the capital of Rwanda, and Vancouver and I haven't quite recovered from my jet lag. It's not all bad because at the very least, I won't be late for my first day as the CAS IEF volunteer at Rwanda's biggest hospital, CHUK. I am told that rounds start at 7am so I plan to arrive early just to get oriented. The walk from the apartment to the hospital is only 30 minutes and, being dry season, it is going to be a gorgeous day. It is expected to be 25 degrees Celsius and sunny and warm.

I've been in the country for only two days and I know that things have nowhere to go but better. It's a long story that involves being denied boarding because I was transiting through Dubai and having to buy a last minute one-way ticket on KLM to Africa with luggage that was 100 lbs overweight. My 15 year old daughter, Sarah, had arranged a one-month volunteer experience in a Kigali orphanage and accompanied me on this trip. All of our donated items made the trip as the KLM counter person was very sympathetic to our plight. Surviving this ordeal only made me more excited to be in Africa as a volunteer.

CAS IEF has been in Rwanda training Anesthesia Residents for a number of years and I had always planned to go when I felt that my eldest daughter could safely accompany me. It took a number of months to plan as I booked Aeroplan tickets for the entire family (my 11 year old daughter and wife arriving during my last week at the hospital). I had arranged a locum to cover for me for our entire trip (July and August). I found a great organization called Faith Victory, which was set up by a Rwandan physician to help genocide victims. Dr Immaculée Mukatete arranged for Sarah and her friend to be placed in a Kigali orphanage (Gisimba), a 10-minute walk from the apartment.

For months, we were busy collecting sports equipment, school supplies and medical supplies for our trip. Months before my volunteer date, I contacted the local Rwandan staff and Residents to ask if they had a particular need for any equipment. I was told that a Glidescope would be very appreciated and I was fortunate to have a very supportive department at Lion's Gate Hospital where all the members pitched in so we could purchase a monitor and two blades. Dr John Pacey, the inventor of the Glidescope, also donated two more blades, nicely rounding off the order. I had a number of other supplies from other companies such as Pajunk and Arrow: hence the 100 lbs of overweight luggage! I have travelled extensively throughout the world but this



Dr Kim at the University Teaching Hospital in Kigali

was my first time to Africa. Rwanda is truly an amazing country. It is hard to believe that the genocide occurred over 18 years ago and it is equally difficult to grasp why it occurred in the first place. At present, it seems like a model nation. The people are extremely friendly and seem to get along well with each other and the government. The welcome that I received in the hospital by the anesthesia staff, Residents and technicians was warm and inviting. They are all keen to learn and are accustomed to having the Canadians around to teach.

The time goes by so quickly. Before I knew it, the first week had passed. Luckily, the jet lag had slowly passed with the only residual effect being early morning wake-ups and this worked well with the 7 am starts.

My day varied from being in the main OR, the ICU or the Obs/Gyn OR. CAS IEF provided a curriculum to teach during Monday academic days and, in the OR, I concentrated on teaching airway management with the Glidescope and various regional block techniques. I can distinctly remember the jubilant feeling in the room when we successfully intubated our first difficult airway patient. This was during academic day and all the Residents had gathered in the main OR after lunch. The case involved a patient with a thyroid mass and all were impressed with how the Glidescope functioned and very happy to get it as their two bronchoscopes were both broken.

The pace in Africa is very different to what we are used to in Canada – this can be both good and bad. The ORs often start late as there is a tremendous lack of "supplies", which I later found out were the sterile drapes. The flip side to this was that there was always time for coffee and lunch. This is when I got to really know the people and I made it a habit to always buy lunch for the Residents, as it was at these times that we would discuss all manner of topics. I

continued on page 13



The Residents "do lunch"

was always amazed at how much food they could eat at our favorite lunch place, an African buffet restaurant called the "Karibo" (Swahili for "Welcome"). They would pile the food on the plate so high that there would be a mound that distinctly resembled a volcano. This mass of food and Fanta (the beverage) will forever be etched in my mind.

The times outside of the hospital environment were equally rewarding. We immediately purchased the gym/pool membership at the 5-star Serena Hotel across the street from the hospital. Sarah and I each had a cell phone and our daily routine would be for her to text me in the afternoon after she had safely arrived at the hotel after a day at the orphanage. It was a 40-minute walk for her and, after a few weeks, I relented and allowed her to take the motorcycle taxi. For the people who have been to Rwanda, you probably think that I am a terrible parent because these motor cycle drivers can be pretty crazy. Sarah learned the Kinyarwanda word for "slowly, slowly" very quickly! Luckily, nothing happened to her except a pretty nasty exhaust pipe burn to her leg.



Dr Kim with Dr Kiviri, CHUK's Anesthesia and ICU Department Head

We kept very busy on the weekends. Trekking with the mountain gorillas is an experience that should not be missed. It was incredible to see up close these magnificent creatures in their family group and natural surroundings. I kept telling myself that the \$750 park permit fee was going to a good cause. On another weekend, we rented a car with a driver to explore the north-western parts of the country. On the way, we stopped at a large orphanage that cares for over 600 children and dropped off some badly needed supplies. Our best experience with the local culture was



Glidescope and Lifebox pulse oximeter in use!

when we were invited to a Rwandan wedding, including the initial family meeting. Needless to say, there were lots of beautiful traditional outfits, and magnificent singing and dancing.

Before long, it was time to go but not after many friendships and contacts were made. I have been in touch with Dr Willi Kiviri, the Anesthesia and ICU Department Head at CHUK to possibly start a study in Rwanda. I will definitely return, as my

younger daughter has expressed interest in going back to the orphanage.

As it was the school summer holiday, our family took an



Dr Kim's daughter, Sarah, (right) on a motorcycle taxi

extended trip through East Africa. We had an incredible time doing all the usual activities and I would highly recommend taking some time either before or after your volunteer month. There are a number of different safaris you can choose from including camping, luxury tenting and game lodging. After spending countless hours in a Safari Land Cruiser, it was a pleasant change to go trekking.

Our family also managed to successfully climb Mt Kilimanjaro and Mt Kenya, Africa's two highest mountains, and we ended our trip in Zanzibar on the Indian Ocean, which was very cultural as well as relaxing. On the way back to Canada, we managed a brief stopover in Dubai. The idea of skiing indoors while the outside temperature was 45 degrees Celsius was too much to pass by.

From being denied boarding on the flight to Rwanda to standing on the top of Africa, it was a fantastic trip indeed.

Ethical Decision-Making In The Distribution Of Scarce Resources

By: Dr Richard Hall, FRCPC and Dr David McKnight, FRCPC

Introduction

There have been several recent instances where rationing of health care resources has been necessary e.g., SARS, H1N1, and the recent closure of the Boucherville Sandoz manufacturing site. For the foreseeable future, it is likely that anesthesiologists will continue to be challenged to provide care under circumstances where the quantities of drugs, supplies, and equipment are less than ideal. To help guide practitioners in their decision-making, we provide some ethical principles upon which to frame a policy for the distribution of resources when they are in short supply for whatever reason. Such policies should be developed prior to the occurrence of shortages to protect health care workers by ensuring the standard of care is maintained — at a minimal, if not ideal, level — and preventing the occurrence of uneven distribution of the burdens of care which arise in such a situation¹.

Principles

In general, under circumstances of short supply, the goal is to produce the greatest benefit for the greatest number of people – a utilitarian concept used often by the military and those charged with disaster planning but less familiar for those in the normal civilian population charged with developing policy for shortages.^{1,2}

Below are some principles to guide policy development³.

Transparency: The principles and methods by which resources will be allocated should be transparent and widely distributed and, where possible, involve consultation with relevant stakeholders including hospital administration, surgeons, other health care professionals, and possibly patient representatives or groups.

Justice: Allocation of resources must be according to valid criteria such as need and capacity to benefit and should not be based on ethically irrelevant criteria such as race/ethnicity, religion, sexual orientation, residency status, social status, or ability to pay.

Preparedness: Allocation of resources should involve a prepared triage plan which identifies constituents likely to be affected and is developed by stakeholders and adhered to by participants.

Basis in Evidence: Where information exists, decision-making should take into account the best available

evidence regarding efficacy and safety.

Priorities: There should be a list of priorities for the intended therapy which is readily available and agreed to by relevant stakeholders.

Reassessment: Where possible, the impact of the allocation process should be assessed on a regular basis to ascertain if the original objectives of the resource allocation have been achieved and sustained or whether further change is necessary.

Accountability: There should be an accountability framework established so stakeholders know to whom they should direct their comments/concerns. This framework should be widely distributed among stakeholders. The possibility of an appeal mechanism should be considered.

Privacy: Personally identifiable health information should not be disclosed without prior authorization from the patient or legally authorized representative.

Several complicating factors are often involved that make the ethical decision-making process for allocation of scarce resources more difficult⁴:

1. Inadequate funds to support all initiatives
2. Strong opinions of influential and politically powerful people
3. Significant conflicts of interest among stakeholders
4. Time constraints in analysing proposals and potential consequences
5. Uncertainty about outcomes, benefits, and risks
6. Competing professional and personal values
7. The possibility that making these decisions may have adverse effects on the decision makers.

The allocation of scarce resources from an ethical perspective should reflect transparency, honesty, integrity, promise-keeping, stewardship, and fairness. The ability to address these issues depends on:⁴

1. Objectivity
2. Credibility
3. Accountability
4. Respect for legitimate differences of opinion
5. Reliable and comprehensive information
6. Distinguishing between rhetoric and reality (between "need" and "want")
7. Recognizing that some legitimate needs may not be met
8. Developing and stating reasonable bases for decisions

continued on page 15

9. Communicating effectively
10. Obtaining support from key stakeholders.

Accountability for Reasonableness

One framework within which to establish priorities and policy with respect to allocation of scarce resources and which has emerged as applicable to the Canadian health care context is the “accountability for reasonableness” framework.^{5,6,7} It is based on the principle that whatever the policy developed, if it is based on fairness, it is likely to be acceptable to the relevant stakeholders. According to accountability for reasonableness, an institution may claim to have established a fair process or policy for prioritization of the distribution of scarce resources if four conditions have been met:

1. Rationales for priority-setting decisions must be publicly accessible (*publicity condition*);
2. These rationales must be considered by fair-minded people to be relevant to priority setting in that context (*relevance condition*);
3. There must be an avenue for appealing these decisions and their rationales (*appeals condition*); and
4. There must be some means, either voluntary or regulatory, of ensuring that the first three conditions are met (*enforcement condition*).

Provided the above conditions can be seen to have been met, it is likely that the stakeholders involved will accept the reasonableness of the priorities and agree to abide by them.

Conclusion

By delineating these principles and recognition of potential barriers as outlined above, we hope this may allow practitioners to encourage organizations to have a policy in place which will guide them in the allocation of scarce resources in an ethical manner. We encourage practitioners to establish such a policy as the question is not if resources will be scarce but when the next event will happen. By being prepared, the burden of decision-making that falls on individual practitioners may be ameliorated.

¹ Levin D, Cadigan RO et al. *Altered Standards of Care During an Influenza Pandemic: Identifying Ethical, Legal, and Practical Principles to Guide Decision-making*; Disaster Medicine & Public Health Preparedness, 2009; 3(Suppl 2) S132–S140.

² Lin JY and Anderson-Shaw L. *Rationing of Resources: Ethical Issues in Disasters and Epidemic Situations*; Pre-hospital and Disaster Medicine; 2009; 24(3);215–221.

³ Adapted from Barnett DJ, Taylor HA et al. *Resource Allocation on the Frontlines of Public Health Preparedness and Response: Report of a Summit on Legal and Ethical Issues*; Public Health Reports, 2009, 124;295–303.

⁴ Hofmann PB. *7 factors Complicate Ethical Resource Allocation Decisions*, Healthcare Executive, 2011; 26(3) 62–63.

⁵ Martin DK et al. *Fairness, accountability for reasonableness, and the views of priority setting decision makers*. Health Policy 2002;61:279-90.

⁶ Daniels N, Sabin JE. *Limits to health care: fair procedures, democratic deliberation and the legitimacy problem for insurers*. Philosophy and Public Affairs 1997; 26(4):303–50.

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Recognizing Our Global Oximetry Project Donors

By Dr Francesco Carli, FRCPC

The campaign to raise funds to purchase 250 oximeters for Rwandan operating rooms, recovery areas and birthing centres concluded in the spring of 2012. Over a relatively short period of time, the campaign attracted the generosity of many individual and group donors. It was, in no uncertain terms, a resounding success and we are pleased to acknowledge the donors on the following pages.

Update

In January 2013, our volunteers – Dr Patty Livingston and Dr Angela Enright – will be training doctors and distributing oximeters to all hospital anesthesia providers (nurses and doctors) in Kigali as part of the Safer Anesthesia from Education (SAFE) course.

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Four Notable Canadian Women in Anesthesia

By Dr MJ Douglas, FRCPC

There have been and are many important female anesthesiologists in Canada. This manuscript highlights the careers of four who practiced in different areas of the country and at different time periods (Margaret McCallum Johnston, Enid Johnson McLeod, Kathleen (Kay) Belton and Jean Hugill). The information on which this is based came from many sources, including the Internet, but in some cases the information was conflicting.

To understand some of the challenges faced by early female anesthesiologists, one first has to understand those faced by Canadian women who wished to practice medicine. Many of the first Canadian women physicians entered medical school when they were in their late 30s and 40s as they had to earn sufficient money to pay for their tuition. In the mid 1800s, women had to leave Canada to acquire a medical education, either travelling to the USA or to Europe. Once a woman graduated from medical school, she then faced the challenge of finding an internship and/or a residency, as many hospitals refused to hire women.

In 1852, Emily Stowe (the well-known Canadian suffragette and founder of Women's Medical College in Toronto) was denied admission to medical school in Canada and so obtained her medical degree in the USA. She returned to Canada and set up a practice in 1862 but without a license. It was finally granted in 1880. In 1875, Dr Jenny Kidd Trout became the first woman to be granted a license to practice medicine in Canada while the first woman to graduate from a Canadian medical school was Dr Anne Augusta Stowe Cullen who did so in 1883.

The first female physician in Quebec, Dr Irma LeVasseur, was denied admission to medical school in Canada and so obtained her degree in the USA. She returned to Quebec in 1900 and a law was passed in 1903 to allow her to practice medicine. She and Mme De Gaspé-Beaubien founded the Hôpital Saint-Justine in Montreal. In 1891, Octavia Grace England was the first woman to graduate from medical school in Quebec.

The story was similar in the Maritimes with Dalhousie finally passing a regulation in 1881 which allowed women to be admitted to medical school. However, it was not until 1894 that Anna Isabella Hamilton graduated from Dalhousie.

Margaret McCallum Johnston was born in 1875 and died in 1947 at the age of 72. She was the first woman to intern in a Canadian hospital (Hospital for Sick Children) after graduating in 1900 from the University Trinity College. She was on staff at the Dispensary (later Women's College Hospital) and became its first chief anesthetist in 1914. In addition to her anesthetic career, Dr Margaret Johnston was active in the suffragette movement and was President of the Toronto Suffrage Association. She was married to Dr Samuel Johnston who was the first full-time anesthesiologist in Canada and the first president of the Canadian Anaesthetists' Society.

Enid Johnson McLeod is well known in anesthetic circles for her work on curare with Harold Griffiths. She obtained her MD from Dalhousie in 1937 but then had difficulty obtaining an internship position. She was taken under Dr Griffith's wing and encouraged to do an anesthetic residency at McGill. After her residency, she returned to Sydney, Nova Scotia. When she and her husband moved to Dartmouth in 1960, she was unable to continue practicing anesthesia due to difficulties with travel to the hospital. She was offered a position at Dalhousie in the Department of Physiology and ultimately became a Professor Emeritus, receiving an honorary LLD in 1995. In celebration of the admission of the first woman to Dalhousie, she wrote a history of those first female graduates. The book was titled *Petticoat Doctors*.

Kathleen (Kay) Belton was a colleague of Dr Digby Leigh at McGill and with him co-authored the first textbook in pediatric anesthesia. Born in Saskatchewan, she completed her medical training at McGill, graduating in 1941. She did her anesthetic training at Toronto General Hospital, Montreal General Hospital and the Children's Memorial Hospital in Montreal. She was certified by the Royal College in 1946 and was appointed Assistant Director of Anesthesia at the Children's Memorial



Dr Enid Johnson McLeod
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Dr Margaret McCallum Johnston
Photo from The Hospital for Sick Children
Annual Report, 1901,
courtesy of The Hospital for Sick Children

Hospital in Montreal. In 1947, she moved from Montreal to Vancouver to be in charge of pediatric anesthesia at Vancouver General Hospital when Dr Leigh established the Department of Anesthesia. In 1954, she moved to California where she was active in the California Society of Anesthesiologists. She was known as a superb clinician and teacher and died in 1980 at age 64.

Jean Templeton Hugill graduated from the University of Alberta Medical School in 1946. Like many physicians, she became a member of the Royal Medical Army Corps and completed the McGill diploma program in 1949. Dr Hugill moved to Port Alberni, B.C. and became the first



Dr Jean Hugill

woman to practice anesthesia on the West Coast. She later was on staff at Vancouver General Hospital where she spent the rest of her career focusing on obstetric and pediatric anesthesia. During her career, Dr Hugill was instrumental in teaching the fundamental principles of obstetric anesthesia to Residents, including myself. Following her retirement, she donated in excess of \$1.2 million to the Departments of Anesthesia at the Universities of Alberta and British Columbia (UBC) to further research into pain management and anesthesia. At UBC, the funds were used to establish the Jean Templeton Hugill Chair in Anesthesia. Dr Hugill died in September 2012 at the age of 89.

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Thanks to Drs Jean Kronberg, Joan Bevan and Jean Gray for their assistance in locating information on these amazing women.

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