

UNIVERSITY OF  
TORONTOInterdepartmental  
Division of Critical  
Care Medicine

# IDCCM Newsletter



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## Welcome to our semiannual IDCCM Newsletter!

It is always amazing to see how rich is our group and the Newsletter is only showing a little piece about what's going on in the Division and the new developments in our field.

Times flies so fast that I am sure there will be people saying some "news" is already old stuff when it's only a few weeks old, but we should see it as an occasion to celebrate. For instance, the CCCF may look already from the past for all of you who attended, presented, participated, listened, met, socialized, etc but it has been again a real success. That's really representing a huge amount of work, effort, enthusiasm and creativity from a lot of people. The photograph on our front page shows the IDCCM director very formally congratulating the organizers... just to remind us of some of our international successes which makes Toronto Critical Care a real brand!

We want this Newsletter to be yours and make it open to your wishes and ideas. We hope you will find a large diversity in the types of presentations and news in this issue. We hope that some of you will say: I should have submitted my own story about this...! No problem, and be prepared for next time!

I also want to reiterate how pleasant and enriching it is for me to work with you all in Toronto. From a more personal standpoint I also wanted to thank all those who, in writing or orally, had kind words for what happened in Paris, and which is now sadly becoming part of our daily world.

Again, let's celebrate and enjoy this Newsletter!

Happy Holiday Season to all of you!

*Dr. Laurent Brochard*

**Save the Date!**

**Art Slutsky Day**  
**June 14, 2016**

**Residents and Fellows Orientation Day**  
**July 4, 2016**



## Awards



### Dr. Robert Fowler

Recipient of the 8<sup>th</sup> Annual Leo N. Steven Excellence in Leadership Award (extraordinary individuals who through their leadership contribute to Sunnybrook's vision to invent the future of healthcare).

Rob has been deeply and directly involved in the Ebola crisis. Together with clinicians who have assisted in the treatment of patients with Ebola virus disease throughout West Africa during this outbreak with the World Health Organization, he wrote an illuminating piece about this experience (AJRCCM 2014). This paper has been the most frequently downloaded paper from the Blue journal and has also been extremely highly cited.

In this regard, we are also pleased and proud to say that Rob Fowler received a *Meritorious Service Decoration by the Governor General of Canada for his role in the response to the Ebola crisis.*



### Dr. Alberto Goffi

Won the young lecturer award at the ESICM and received a Presidential Citation at the Neurocritical Care Society in Phoenix, Arizona, USA.



### Dr. Victoria McCredie

Identified with an honorable mention for organizing and bringing the first Emergency Neurological Life Support course to Nepal in the spring of 2015 – demonstrating outstanding international leadership in neurocritical care on the global stage.

### Drs. Simon Abrahamson and Alberto Goffi

Received letters of recognition from the Practice, Performance and Innovation unit at the Royal College of Physicians and Surgeons of Canada for their invaluable contributions to simulation-based education in 2014-2015.



## Grant Awards



### Dr. Lisa Burry

Received the CIHR Knowledge Synthesis Grant for the Spring 2015 Competition on “Sedation and delirium in the ICU: network meta-analyses.

### Drs. Niall Ferguson and Damon Scales



Niall Ferguson and Damon Scales (co-Principal Investigators) received a grant from CIHR worth \$880,404 over five years to conduct the **The NEUROlogically-impaired Extubation Timing Trial (NEURO-ETT)**. This randomized controlled trial will determine the optimal airway management strategy for patients who are weaned to minimal ventilator settings but remain intubated due to their underlying neurological injury. Specifically, the 3-arm trial will evaluate whether prompt extubation after a spontaneous breathing trial leads to better patient outcomes compared to performing a tracheostomy, versus usual care.



Damon Scales (Principal Investigator) was also awarded a grant from CIHR worth \$900,554 over five years to support the **Paramedic Initiated Treatment of Sepsis Trial in Out-of-hospital Patients (PITSTOP)** trial. This 2x2 factorial randomized controlled trial will evaluate whether prompt recognition of sepsis followed by early antibiotics and intravenous fluids delivered by paramedics upon first response leads to improved survival compared to patients who are simply transported to the hospital and treated with usual care.



## 2015 University Promotions

**Dr. Shelly Dev**, Assistant Professor, Sunnybrook Hospital

**Dr. Christopher Parshuram**, Professor, The Hospital for Sick Children

*Announced in our last Summer issue*

**Dr. Claudia dos Santos**, Associate Professor, St. Michael's Hospital

**Dr. Jan Friedrich**, Associate Professor, St. Michael's Hospital

**Dr. Sangeeta Mehta**, Professor, Mount Sinai Hospital

**Dr. Jeffrey Singh**, Associate Professor, University Health Network-TWH

**Dr. Tasnim Sinuff**, Associate Professor, Sunnybrook Hospital

**Dr. Elizabeth Wilcox**, Assistant Professor, University Health Network-TWH

## Research Promotion

**Dr. Elizabeth Wilcox**, Clinician Scientist, Start-up Salary Support  
University Health Network - Toronto Western Hospital

## Recruitment



**Dr. Roxanne Kirsch**, newly appointed Paediatric Staff as of January 6, 2016. Areas of research interests are ethics, aspects of bereavement, and end of life care.

Roxanne completed her paediatric training in Calgary followed by critical care training in Edmonton. She went to the Children's Hospital of Philadelphia in 2008 as a senior fellow in cardiac critical care and then remained there as a staff physician for the past 6 plus years.

She is completing her Master's Degree in Bioethics at the University of Pennsylvania and will be actively involved in the Bioethics Department at SickKids and we hope across the IDDCCM.





## University of Toronto, Adult Critical Care Meet our Residents & Clinical Fellows 2015 - 2016



**Staircase L to R:** Christian Turner, Dominique Piquette, Tiffany Lee, Mika Hamilton, Brendan Sloan, Anna Geagea, Tim Chumunda, Bharath Tirupakuzhi.

**Floor L to R:** Unmesh Edke, David Katz, Sameer Vakani, Abdulrahman Al-Fares, Niall Filewood, Andrew Steel, David Paskar, Shatha Mohammed.

**\*Missing:** David Cape



Toronto General Hospital



Toronto Western Hospital



Mt. Sinai Hospital



St. Michael's Hospital



Sunnybrook Hospital

## University of Toronto, Adult Critical Care Residency Program 2016 - 2018

I am pleased to announce the following physicians will be joining us next year in the Adult Critical Care Medicine Residency Program:

**James East**, University of Toronto

**Brian Buchan**, University of Toronto

**James Lee**, University of Alberta

**Pierre-Alexis Lepine**, Universite Laval

**Dylan Pannell**, University of Toronto

**Maxime Pichette**, Universite de Montreal

**Julien Viau-Lapointe**, Universite de Montreal

**Markus Ziesmann**, University of Manitoba

Our 2016-18 Residency Group will be outstanding. They include: 2 members of the Canadian armed forces, 5 Chief Residents, 2 General Surgeons, 1 Respiriologist, 1 Cardiologist, 1 General Internal Medicine specialist, 1 Emergency Medicine specialist, and 2 Internists. Together they have completed 1 PhD, and 3 MSc's, 6 will have FRCPC, and between them they will have 42 years of postgraduate training, and published more than 44 peer-reviewed articles.

Dylan Pannell and Markus Ziesmann have been offered Trauma Surgery Fellowships in addition to Critical Care residency positions. This is a highly coveted training program and incredibly competitive. Their cross-appointment to Trauma Surgery represents an excellent continuing relationship between our two Divisions, and an important asset to our future recruitment of surgical trainees to Critical Care Medicine.

Our current residents continue to be exceptional doctors, highly-performing scholars, and wonderful colleagues. I look forward to welcoming the 2016-18 group to our Program next year, and I hope that you will all have the opportunity to meet with them at Slutsky Day in June.

Thank you.

Dr. Andrew Steel

Program Director



# 2016 Visiting Professor Rounds Schedule

January 18-20, Dr. Glenn Regehr  
February 8-10, Dr. Hulya Bayir  
March 7-9, Dr. Carolyn Calfee  
April 11-13, Dr. Francois Lamontagne  
May 4, Sibbald Lecture, Dr. David Menon  
June 14, Art Slutsky Day  
September 12-14, *TBD*  
October 17-19, Dr. Augsutine Choi  
November 14-16, *TBD*  
December 12-14, Dr. Dale Needham

The program is smoothly and excellently coordinated by Ms. Meredith Malloy,  
[Meredith.Malloy@sunnybrook.ca](mailto:Meredith.Malloy@sunnybrook.ca). If you have any suggestions, please contact her.

## IDCCM Website

We are happy (and proud) to announce that we have included new features in our website, including, among others, a short bio for all Faculty members, a template for logo and slides, the new U of T Critical Care Education Program, and the new IDCCM scholarly inventory.

Visit <http://www.criticalcare.utoronto.ca/home.htm>

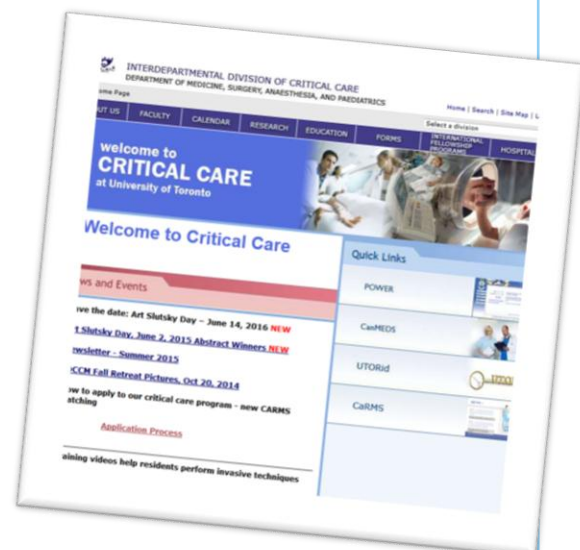
and please look for the “**New**” in the menu items, best viewed in Firefox or Chrome\*.

Our goal with the new features is to provide our visitors an easier way to learn more about our division.

I would also like to thank Louisa Matela for our division and Nelson Lo from the Department of Medicine for working so efficiently on the website, and to all members who responded to our requests.

Thank you for the continued support.

Dr. Laurent Brochard





## The FAST Trial and the ‘WE Succeed Study’ .....novel weaning collaborations

Informed by the pilot screening frequency trials (RELEASE Trial in patients < 65 years of age and the SENIOR Trial in patients 65 and older) comparing ‘once daily screening’ to ‘at least twice daily screening’ to identify patient who can breathe spontaneously, we plan to launch the pilot FAST Trial in early 2016. Funded by CIHR, the FAST Trial will assess the feasibility of comparing both screening frequency and SBT technique (T-piece, PS  $\pm$  PEEP) in 100 patients in 10 ICUs in Canada and the United States. Within a novel collaboration of trialists who are affiliated with the CCCTG and the National Institutes of Health PETAL Network, we are currently applying for funding to conduct a large scale, mixed methods, factorial design weaning study in 20 Canadian and American ICUs to evaluate the effect of the alternative weaning strategies on time to successful extubation. In the context of this large trial, we will also (i) compare recruitment and consent metrics between eligible elderly and non-elderly patients, (ii) evaluate the incremental effect of age on time to successful extubation and (iii) conduct 3 nested, qualitative studies of trial participants and their family members.

The ‘WE Succeed Study’ is novel in several ways. First it represents the first large scale collaboration of the *North American Weaning Collaborative* involving ICUs and investigators from 2 internationally recognized research consortia. Second, it will engage patients and family members in all aspects of critical care research design and implementation as members of a *Patient and Family Advisory Committee*. This committee will advise the Steering Committee regarding issues that are important to patients and family members during study implementation. Third, we will ascertain the effect of age, as a continuous variable, on the log odds of time to successful extubation using state-of-the art statistical analytic techniques. Fourth, we will assess the generalizability of our trial findings to elderly patients by ascertaining whether different rates of exclusion and consent impact upon trial participation. The WE Succeed Study is expected to inform decision-making during weaning and discussions with patients and families of elderly patients regarding their weaning outcomes.

Dr. Karen Burns

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## New Insights in Diaphragm Injury During Mechanical Ventilation

A team of IDCCM researchers published new and important findings on the impact of mechanical ventilation on the diaphragm. In a prospective cohort study, they found that close to 50% of patients developed significant decreases in diaphragm thickness during the first 3-4 days of mechanical ventilation (with some patients losing as much as 30-40% of muscle thickness in that period of time). A small subset of patients (approximately 10%) exhibited an early increase in diaphragm thickness. Strikingly, both decreased and increased thickness was associated with impaired diaphragm function, suggesting that these changes were consistent with muscle injury. The rate and magnitude of change in diaphragm thickness were related to the magnitude of inspiratory effort. These findings provide impetus for the design and evaluation of strategies to prevent diaphragm injury. Ongoing studies within the IDCCM aim to further define the extent of diaphragm inactivity and the potentially injurious effects of patient-ventilator dyssynchrony. Data on the impact of diaphragm injury on patient-centered clinical outcomes are awaited.

Dr. Ewan Goligher





## Issues in Law and Ethics

### **Consent to Treatment and the CPSO's new policy: what do you need to know?**

In May 2015, the College of Physicians and Surgeons of Ontario released their new Consent to Treatment Policy Statement. The policy had not been updated since September 2005 and the new policy more closely mirrors Ontario's Health Care Consent Act 1996 (*HCCA*). Yet the Consent to Treatment policy goes beyond the *HCCA* and provides much needed clarity and guidance for frontline clinicians on best practices that will serve to improve the quality of care provided. This summary will focus on key issues addressed in the policy that have not yet been fully elucidated in either legislation or common law.

WELCOME TO THE ISSUES IN LAW AND ETHICS SECTION OF THE IDCCM NEWSLETTER.

THE SECTION WILL GENERALLY USE CASE DISCUSSIONS AND FAQ FORMAT TO EXPLORE CHALLENGING ISSUES IN PRACTICE.

IF YOU HAVE AN INTERESTING CASE YOU WOULD LIKE TO SEE DISCUSSED IN THE NEXT ISSUE, EMAIL DR. LAURA HAWRYLUCK , [LAURA.HAWRYLUCK@UHN.CA](mailto:LAURA.HAWRYLUCK@UHN.CA)

In healthcare, capacity and consent issues are among some of the most adjudicated issues in common law. The right to self-determination is fundamental in law and for this reason a person is presumed capable until proven otherwise. Even in the event of incapacity, legislation has devised a process to protect this right to self-determination through creation of a substitute decision-making process which mandates prior capable applicable wishes be followed or if none exist, a best interests standard be applied. In Ontario, under the Health Care Consent Act 1996, a person is capable if he/she has the ability to understand the information relevant to making a decision and the ability to appreciate the reasonably foreseeable consequences of a decision or lack of decision<sup>1</sup>. Most critically ill patients are incapable of participating in decision-making for reasons that are usually very obvious to the ICU team. The documentation of capacity is therefore rarely found. This will be the first thing that now needs to change. The CPSO's new Consent to Treatment policy states:

*Physicians are [also] advised to document findings of incapacity and the identity of the substitute decision-maker.<sup>2</sup>*

While it is common knowledge that consent must relate to the treatment being offered, be informed, must be given voluntary and must not be obtained through misrepresentation and fraud, it is not always clear in critical care when consent needs to be explicitly obtained and documented and when it can be implied. The *HCCA*, defines "treatment" as *anything that is done for a therapeutic, preventive, palliative, diagnostic, cosmetic or other health-related purpose, and includes a course of treatment, plan of treatment or community treatment plan*<sup>3</sup>. More relevant to critical care, the Act further defines a "plan of treatment" means a plan that,

<sup>1</sup> Health Care Consent Act 1996 c2 Schedule A s. 4(1)

<sup>2</sup> College of Physicians and Surgeons of Ontario, Consent to Treatment Policy Statement #3-15 May p. 10



- (a) is developed by one or more health practitioners,*
- (b) deals with one or more of the health problems that a person has and may, in addition, deal with one or more of the health problems that the person is likely to have in the future given the person's current health condition, and*
- (c) provides for the administration to the person of various treatments or courses of treatment and may, in addition, provide for the withholding or withdrawal of treatment in light of the person's current health condition; ("plan de traitement")<sup>4</sup>*

Even though the Act created the concept of a plan of treatment to permit flexibility in treating patients, in ICU clinical practice obtaining express consent for things such as changes in central lines/ monitoring devices, dialysis-- to name but a few interventions--- can be variable across critical care setting—with some arguing these are all part of a treatment plan to which a patient or substitute decision-maker consents to when accepting life-sustaining treatments and others viewing them as individual treatment entities each of which require consent. For the first time, the new CPSO policy helps clarify when explicit consent is actually needed<sup>5</sup>

*Although the HCCA states that consent to treatment may be express or implied, the College strongly advises physicians to obtain express consent, particularly when the treatment is likely to be more than mildly painful, carries appreciable risk, will result in ablation of a bodily function, is a surgical procedure or an invasive investigative procedure, or will lead to significant changes in consciousness. Unless it is not reasonable to do so in the circumstances, physicians are entitled to presume that consent to treatment includes: consent to variations or adjustments in the treatment, if the nature, expected benefits, material risks and material side effects of the changed treatment are not significantly different; and consent to the continuation of the same treatment in a different setting, if there is no significant change in the expected benefits, material risks or material side effects of the treatment as a result of the change in the setting in which it is administered.<sup>6</sup>*

The implications for clinical practice in the ICU are that explicit consent is needed and must be documented under the following circumstances:

1. Prior to Initiating Life sustaining treatments, consent must initially include at a minimum:
  - a. discussion of options of mechanical ventilation, central and arterial line insertion and vasopressor/inotropic use, artificial nutrition, sedation and analgesia
  - b. their expected benefits, material risks and side effects, alternative courses of action and consequences of not having the treatment.
  - c. If relevant initial consent may need to include consent for dialysis
2. Every subsequent line change, change in mode of ventilation, manner of sedation etc would not entail 'significantly different risks' and it would be sufficient to assume consent is implied.
3. Treatment of delirium, depression and anxiety can remain implied as part of treatment plan unless there are unique patient circumstances that, from the clinicians' perspective, warrant explicit consent.



4. If the treatments/procedures are less frequently needed within the 'usual' treatment plan, consent should be explicit and
5. The greater the treatment's clinical consequences/effects on short and/or long term outcomes, the more time should be taken to obtain explicit consent ( e.g. initiation of dialysis after MSOF develops during course of treatment).

Standardized consent forms, while useful for hospital administrative purposes are legally and ethically insufficient to indicate consent has been obtained as they are not specific enough to the patient's unique medical context, circumstances and treatment goals. Moving forward though, ICUs may still want to develop a standardized format for documenting consent—one that entails filling in information specific to the individual patient they treat. For the first time, the CPSO has specified what needs to be documented when obtaining consent<sup>7</sup>:

*Physicians must use their professional judgment to determine what information to document in the patient's record, taking into consideration the specific circumstances of the case. However, the College recommends that the following be included: the date of the dialogue; who was involved in the dialogue; the specific material risks that were communicated; any unique material risks related to the specific circumstances of the patient that were communicated; the risks of not treating the condition that were communicated; whether consent was given or refused and by whom; and the date that consent was given or refused.*

While the CPSO does not discuss issues specific to the ICU in this policy, if we want to further improve critical care decision-making, the goals of a trial of life-sustaining treatment and the evaluation of the outcomes of the treatment trial should also be documented. Such documentation should be made readily retrievable. Systematic attention to such issues will improve continuity of patient care, hopefully reduce misperceptions of potential benefit and diminish subsequent conflicts and staff burnout.

Dr. Laura Hawryluck

<sup>3</sup> HCCA s. 2(1)

<sup>4</sup> Health Care Consent Act 1996 c2 Schedule A s 2 (1)

<sup>5</sup> College of Physicians and Surgeons of Ontario, Consent to Treatment Policy Statement #3-15 May 2015 p. 9

<sup>6</sup> Ibid supra p. 5

<sup>7</sup> Ibid supra p. 10



## How useful are ultrasounds during the weaning process? USEFUL study will address this issue soon...

For some patients, weaning process may be difficult (1). That means that these patients cannot be separated from the ventilator after a first spontaneous breathing trial. For physicians, RTs, nurses, the main issue is to determine the reason of weaning failure. Most often, the underlying mechanisms are related to fluid overload, respiratory muscles weakness, atelectasis, lung collapse, consolidation or lung edema. **There is a simple, non-invasive and promising tool that could help caregivers in this context. This tool is ultrasound.** Not only ultrasound but multimodal ultrasound. Cardiac echo is used since several decades in order to assess cardiac function (2). Cardiac echo may help to detect weaning induced cardiac dysfunction with reliability. More recently, ultrasound has been used to investigate the function of diaphragm (the main respiratory muscle) in critically ill patients before weaning trial (3). Other clinical studies reported interesting findings with lung ultrasound to predict the risk of post extubation respiratory distress.

The main objective of **USEFUL study** will be to **investigate if ultrasound examination is able to explain the reason of a failed spontaneous breathing trial.** For this purpose, patients will have lung, cardiac and diaphragm ultrasound on one side, and physiologic measurements on the other. At the end, it is expected to propose to clinicians a simple and non-invasive way to explain the reason of weaning failure and to avoid the use of more invasive technics. **USEFUL is expected to start soon and will enrol patients who had failed a spontaneous breathing trial.**

1. Perren A, Brochard L. Managing the apparent and hidden difficulties of weaning from mechanical ventilation. *Intensive Care Med* 2013.
2. Caille V, Amiel J-B, Charron C, Belliard G, Vieillard-Baron A, Vignon P. Echocardiography: a help in the weaning process. *Crit Care* 2010.
3. DiNino E, Gartman EJ, Sethi JM, McCool FD. Diaphragm ultrasound as a predictor of successful extubation from mechanical ventilation. *Thorax* 2014.

Drs. Martin Dres & Ewan Goligher

## iCORE - Quality Improvement

Measuring adherence to best practices is one of the foundations of quality improvement. It allows clinicians, patients, family-members and managers to understand how well we provide care and to decide in which areas to concentrate our efforts to improve quality of care. Using the Toronto iCORE (Intensive Care Observational Registry), a research registry for mechanically ventilated patients created by Eddy Fan, and with support from the chiefs of department, we were able to gather a group of stakeholders from each center to define quality metrics using the existing data.

We will report on several evidence-based metrics, such as adherence to DVT prophylaxis, spontaneous breathing trials, sedation management, delirium screening, early mobility and lung protective ventilation. These reports will be distributed within our group on a monthly basis, with a go-live date of January 2016 (first report to be distributed in February 2016).

Furthermore Eddy Fan, Andre Amaral and Nava Maham (from Trillium Health Partners) are actively involved in creating a network of community and academic ICUs, including 8 academic and 14 community ICUs, to collaborate in quality improvement projects. The network is trying to actively involve our partners to join iCORE and to collaborate in QI projects across Ontario. By fostering collaboration we hope to be create an environment that allows for peer learning and accelerated adoption of evidence-based practices.

Drs. Andre Amaral & Eddy Fan





# 25<sup>TH</sup> ANNIVERSARY CELEBRATION

25<sup>th</sup> Year ECLS Celebration - Family Day

On Sunday, October 4<sup>th</sup>, we honoured the Heroes of the program – patients and their families by hosting an afternoon reception in the Gallery at the Peter Gilgan Center for Research and Learning. Seventy five people attended to celebrate both families of children who survived and those who did not. The afternoon was co-hosted by Kevin Frankish of CityTV's Breakfast Television with Karen Dryden Palmer and Linda Fazari, both responsible for the Follow-Up Program. Children of all ages were treated to an afternoon of activities organized by Shaindy Alexander from Child Life and our incredible volunteers. Families listened to information about the ECLS Follow-Up Program with a special presentation by Dr. Renee Sananes, a psychologist who spoke about developmental recovery, and physiotherapist Jamil Lati, who explained the importance of patient specific rehabilitation on ECLS.

The Program's Ambassador shared her story and received a standing ovation. Kevin Frankish closed by inviting everyone to stay in touch with the Heroes Support Group and reminded everyone that they are not alone.

There were interactive displays about the ECLS technology available at SickKids. The State of the Art ECLS Transport equipment, generously sponsored by SickKids Foundation and Grady's Gift, was set up by Mark Todd, ECLS Coordinator, Paul Kratz, Perfusion Educator, and our Medical Engineering team, Greg Patterson and Navtej Virdi.

A huge thank you to all the volunteers, notably Leanne Davidson, Sophie Joseph, and Natalie Wu who shared their knowledge and expertise by explaining and demonstrating some of the life support equipment and technologies to the attendees.

Dr. Anne-Marie Guerguerian & Mr. Mark Todd



Shaindy Alexander (on left),  
Certified Child Life  
Specialist for Critical Care,  
celebrating with a family.

View Lectures from ECLS Academic Day, copy & paste in browser: <http://www.sickkids.ca/Critical-Care/programs-and-services/Extracorporeal-Life-support/videos/index.html>

ECLS Fellowship: <http://www.sickkids.ca/Critical-Care/Physician-Education/Specialty-Paediatric-Critical-Care-Training/Specialty-Paediatric-Critical-Care-Training%20.html#Advanced-Fellowship-in-Paediatric-Extracorporeal-Life-Support>



# 25<sup>TH</sup> ANNIVERSARY CELEBRATION

On Monday, October 5<sup>th</sup> we held SickKids ECLS 2015 – The Future is Now! Academic Day which was a symposium for health-care professionals to learn about and share knowledge with our local, provincial, national, and international partners, and to forecast some of the upcoming exciting developments for the coming decade. The day was filled with great presentations from our team and partners at UHN.

The Program's Ambassador, a former patient who required ECMO more than two decades ago, recounted her family's journey and the incredible relationships they formed with some of the bedside staff.

Dr. Desmond Bohn – program founder – kicked off the day with a history of the beginnings of ECMO and the program at SickKids and Dr. Glen Van Arsdell closed the day with a very inspiring talk about pushing the boundaries and where we go from here. All lectures are available on the SickKids YouTube channel.

The day ended with a reception in the Gallery where a past tradition – the Holiday Pump – was recreated, this time using an ECMO circuit and pump to serve refreshments.

Again, thank you to all who attended and made the day such a huge success. Acknowledgements to Leanne Davidson, Lori Hamilton, Jason Macartney, Navtej Viridi, Natalie Wu and Paul Kratz who helped with the interactive displays and shared their knowledge and expertise with the attendees.



Natalie Wu, RN (on left) with the Ventricular Assist Device (VAD) team and Jamil Lati, Physiotherapist (on right), are speaking with a family about current VAD technology.

Dr. Anne-Marie Guerguerian & Mr. Mark Todd

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View Lectures from ECLS Academic Day, copy & paste in browser: <http://www.sickkids.ca/Critical-Care/programs-and-services/Extracorporeal-Life-support/videos/index.html>  
ECLS Fellowship: <http://www.sickkids.ca/Critical-Care/Physician-Education/Specialty-Paediatric-Critical%20-Care-Training/Specialty-Paediatric-Critical-Care-Training%20.html#Advanced-Fellowship-in-Paediatric-Extracorporeal-Life-Support>



## Learning about ECLS Technology



Leanne Davidson (on left in photo above), Clinical Educator for Respiratory Therapy and one of the Pioneer ECMO Specialists '91, along with Karen Dryden-Palmer, RN APN (on right in photo above) are explaining to a family how ECLS technology is used in the CCU to support critically ill children. The Gallery of the Peter Gilgan Center for Research and Learning was filled with simulated intensive care unit beds, mannequins, ECMO systems, interventional lung assist devices and mobilization systems developed at SickKids, as well as mechanical hearts that can now support children for months when waiting for recovery or transplantation.



## Desmond Bohn Fellowship in Extracorporeal Life Support



The introduction of the inaugural Hospital for Sick Children Critical Care Medicine Fellowship in Extracorporeal Life Support was announced during the Academic Day on October 5. The fellowship was named in honour of Dr. Desmond Bohn (2<sup>nd</sup> from right in photo above) who was the former Chief of the Department of Critical Care Medicine, former Medical Director of the ECLS Program and original founder of the ECLS Program at SickKids. The fellowship will be first awarded in July 2016.



**Extracorporeal  
Life Support  
Program**

Contact: [ecls.program@sickkids.ca](mailto:ecls.program@sickkids.ca)

ECLS Coordinator: Mark Todd

Medical Director: Anne-Marie Guerguerian



## ICU Nepal Fundraising

The ICU Nepal fundraiser, headed by Dr. Laura Hawryluck, (Department of Critical Care TWH), Dr. Alberto Goffi (Department of Critical Care TWH) and Dr. Angela Jerath (Department of Anesthesia TGH) was a great success.

Thanks to the generosity of Toronto's medical community the campaign raised over \$35,000, including a very generous donation from the Society of Critical Care Medicine (SCCM). The donations were used to purchase ICU disaster care boxes which contain essential drugs and supplies that were needed to quickly stabilize critically injured patients in the massive earthquake. Eight hospitals, including Tribhuvan University Teaching Hospital, as well as villages and communities outside of Kathmandu benefited from the ICU care boxes.

The campaign was also generously supported by PriceWaterhouse Jason Wong who ran the Marathon des Sables Ultra Marathon (251km) in the Moroccan desert to raise funds for the fundraiser, and Christina Sgro's volunteer support.

Dr. Alberto Goffi



## Toronto & Paris

The terrible events in Paris last Friday, November 13<sup>th</sup> left everyone speechless. There are no words to describe how it hurts to see 128 people killed in the night of gun and bomb in Paris.

On November 14<sup>th</sup>, there was a meeting in Toronto at the city hall. Rather to write additional comments on this attack, let's just have a look on this pictures showing solidarity between people of Toronto and Paris.

Dr. Martin Dres





# Trying to make change (in the ICU) a little bit easier

It has now been over a year since I returned from my year-long Harkness Fellowship pursuing a research project with the Institute for Healthcare Improvement in Cambridge Massachusetts.[1] This time away allowed me to pursue quality improvement on a different level asking...“in an effort to improve healthcare are we making it harder to deliver care.” See many quality improvement efforts and recent changes required in healthcare add new tasks, new process and altered workflows in an attempt to reach a higher state of quality. Now don't get me wrong; there is much room for improvement. However we cannot add more work to frontline providers and managers assuming that they will find the time and energy to adopt this new work in a reliable way. [2] On the contrary, this leads to increase burden, burnout, change fatigue, workarounds and a system that is less likely to achieve sustained improvement.

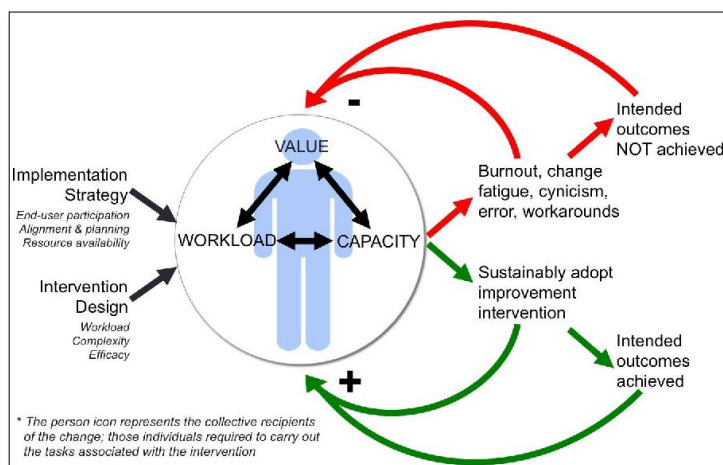
So in reviewing the literature, performing site-visits and interviewing experts in the field, a panel and myself created the Highly Adoptable Improvement model and toolkit.

This conceptual model depicts how change that is perceived of high value and has low to less workload is more likely to achieve sustained improvement and less likely to cause workplace burnout and intervention failure. The toolkit helps QI and change teams assess the adoptability of their initiative and directs them to tools to design more Highly Adoptable strategies.

If you are planning on introducing change or feeling the burden of it...check out the model and toolkit at [www.highlyadoptableQI.com](http://www.highlyadoptableQI.com) and follow the conversation at @HighAdoptQI. Change is hard...let's avoid making it harder!

1. Read more about my Harkness experience at [www.deptmedicine.utoronto.ca/Page2554.aspx](http://www.deptmedicine.utoronto.ca/Page2554.aspx)
2. Hayes CW, Batalden PB, Goldmann D. A 'work smarter, not harder' approach to improving healthcare quality. *BMJ Qual Saf.* 2015 Feb 24(2); 100-2.

Dr. Chris Hayes





## Critical Care Canada Forum 2015

Critical Care Canada Forum (CCCF) is a 3-day conference organized by the Interdepartmental Division of Critical Care Medicine, which focuses on topics that are relevant to the individuals involved in the care of critically ill patients, wherever the patients are located. Internationally recognized, the Critical Care Canada Forum focuses on leading-edge science through informative and interactive sessions, dynamic speakers and numerous exhibitions. The CCCF is a place where doctors, nurses and respiratory therapists can collaborate on shared knowledge across disciplines, departments and institutions.

This year Critical Care Canada Forum (CCCF) was held October 25-28 at the Sheraton Centre Hotel & Convention Centre. The conference proper was preceded by several pre-congress courses, including the popular Fellows' Day (co-sponsored by the Canadian Critical Care Society) and workshops on advanced respiratory support as well as ultrasound in the ICU. This year we also partnered with the International Sepsis Forum to hold a one and a half day symposium before and during CCCF.

This year's conference was attended by over 1000 participants and featured 175 presentations covering many diverse topics including mechanical ventilation, sedation and analgesia strategies, and systems for improving quality and safety. As usual we had presentations of a number of new and important clinical studies – including studies on hypothermia to improve donated organ function, long-term outcomes in patients and caregivers, hyperoxia and hypertonic saline in septic shock, and high-frequency oscillation in severe ARDS.

The organizing committee for Critical Care Canada Forum consists of:

Brian Kavanagh (Chair, Organizing Committee); Niall Ferguson (Chair, Scientific Programme); Laurent Brochard, Shelly Dev; Claudia Dos Santos; Rob Fowler; Stephen Lapinsky; John Marshall; Damon Scales; and Art Slutsky. The conference in 2015 was a huge success, and planning is already underway for the upcoming year October 30 – November 2, 2016. More details are available at [www.criticalcarecanada.com](http://www.criticalcarecanada.com).

*The Critical Care Canada Forum is where Canada's intensivists put the latest science into practice..*



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## *Season's Greetings*

**Have a safe holiday and all the best in the New Year!!**

*Dr. Laurent Brochard and Staff*



*December 2015*