This year’s Resident Research Night was an exceptional success. All the residents and medical students distinguished themselves with well thought projects and professional and polished presentations. This year’s adjudicator was Dr. Simon Mitchell from Auckland, New Zealand. He was genuinely complimentary of the resident’s projects and the infrastructure that has been established in the Department to support research.

A significant development in the research portfolio has been the hiring of Dr. Renee El-Gabalawy. Dr El-Gabalawy is a PhD psychologist with an interest in peri-operative outcomes, especially concerning post-traumatic stress and pain management. The Departments of Anesthesia and the Department of Clinical Psychology have jointly hired her. This is a groundbreaking move for the Department of Anesthesia. We have never before had a non-MD PhD as a member of the Department. Dr El-Gabalawy has already planned a number of research projects with our residents and will be involved with collaborative studies with the Pain Clinic on both a national and international level. We are fortunate to have her as a member of our department and anticipate future success.

Congratulations to Dr. Heather McDonald who is now co-chair of the Peri-operative Clinical Trials Group (PACT). PACT was organized a number of years ago by the Canadian Anesthesiologists’ Society to promote and facilitate multi-centre research trials within Canada. Additionally, PACT was organized to duplicate the successful research projects that have been conducted by the Canadian Critical Care Trials group. This is a great honour for Dr. McDonald and we wish her much success.

Dr. Stephen Kowalski
Associate Head, Research & Academic Affairs
As we near the end of another year, it is prudent to reflect on our Department and programs successes and challenges. However, before I do that, I wish all of our readers, faculty, students and staff a Merry Christmas, Happy Holidays, and a healthy happy New Year to come. I also want to thank everyone for their contributions over the last year in making our Department what it is today.

Our educational programs continue to thrive. Our Department’s involvement in UGME is robust, and an ongoing national survey led from our Department, shows that 27% of our faculty members were involved in teaching medical students last year. That percentage specifically refers to members of our Department that did a teaching activity for medical students in the 2014-15 academic year outside the operating room. This is the highest percentage of any Department in Canada and it is something that is very well received by the University Administration. However, it is also something crucially important for our specialty. Our current high level of interest in attracting excellent medical students is related to the exposure to mentorship opportunities they have had with our excellent and diverse faculty. In addition, the integrated anesthesia surgical clerkship rotation remains very highly evaluated by the students and again accords the faculty an opportunity to mentor students and potentially affecting their decision to consider anesthesiology as a career.

Regarding our Residency Program, we continue having a high-level of interest for the 2016 CaRMS process. I anticipate that we will continue to have an excellent match as we have had in the recent past. Our Brandon stream of the residency, which is the only Royal College program that has officially started up in Brandon, is going well, and we will accept another resident in the 2016 year. Beyond 2016, one resident will be accepted into the Brandon stream every two years. The Brandon stream is fully integrated into the University of Manitoba program, and the Brandon stream resident spends approximately 30-40% of their training time in Brandon. It is anticipated that other Royal College programs will be starting their Brandon rotations in the next few years.

In regards to residency education, the most important change on the horizon is the introduction of competency-based medical education. Pilot projects in anesthesia have started, and it is likely that all other programs will follow over the next 18 months. The main difference in competency-based medical education when compared to what is done today is that there will be a much larger focus on competencies being documented and evaluated. The emotion and controversy about competency-based education often focuses around length of training. That being said, it is unlikely, in the majority of situations, that training length will be significantly affected. The practicalities of scheduling residents to undergo their education, and at the same time have a service delivery component (which is part of residency training), makes it difficult to imagine that there can be a
On behalf of Sean Jardine, Bruce Knoll and the Gasline Team, I would like to introduce our latest Fall/Winter Gasline edition.

In this newsletter, you will find highlights of the academic endeavors of our department. From the success of Resident Research Night, Dr. Heather Macdonald’s honour of being co-chair of the Perioperative Clinical Trials Group (PACT), list of recent publications by our department, and profiles of researchers Dr. Renee El-Gabalawy and Alex Villafranca, this edition of Gasline reflects the academic strengths and mission of our department.

The Fall/Winter Gasline also has important contributions from our new faculty. Dr. Ian Mcintyre has worked hard to develop web-based pediatric anesthesia modules for the resident curriculum. He wrote an excellent article outlining what the modules are, the advantages of a module approach to augment residency training and program specifics.

Dr. Erika Blouw formed a wonderful initiative called Anesthesia Boot Camp. Her article outlines goals and objectives of the boot camp for incoming anesthesia residents.

Dr. Daniela Goldie, in this edition of Gasline, tackles the important topic of Physician Wellness. Dr. Daniela Goldie is doing important work in developing a wellness curriculum for our residents and department.

There is also significant content about the HSC Surgical Special Care Unit, a model of perioperative care, that will likely extend in the near future to other hospitals within our region. As well, there are articles about the humanitarian mission in Nicaragua called Operation Walk, a discussion about our aging anesthesia workforce, and contributions from the leaders of our department.

The Gasline team hopes you enjoy the latest edition of our department newsletter and would like to extend wishes for a happy and safe holiday season.
From the Chief Medical Information Officer

Since July, 2015, I have taken on the appointment as the Chief Medical Officer (CMIO) for Manitoba eHealth.

The CMIO for Manitoba eHealth is the clinical healthcare executive tasked with providing provincial oversight for clinical systems development, adoption, and collaboration within Manitoba’s healthcare teams. Acting as the clinical lead for eHealth planning initiatives and clinical projects, the CMIO provides strategy, leadership, and management direction. In this role, the CMIO is the physician champion for health analytics, patient safety, and quality initiatives within Manitoba eHealth. The CMIO is also the Medical Director of eChart Manitoba, which is the central repository for electronic health data for Manitobans.

I am looking forward to the challenges of this new position, while at the same time maintaining an active clinical appointment with the WRHA/UM Department of Anesthesia. The experiences gained from my previous administrative positions within the Anesthesia program have provided me with invaluable insight into the delivery of healthcare services in Winnipeg, and I would like to thank my colleagues and friends for their previous and continuing support as I transition into the CMIO role.

I can be reached via email at TLEE@manitoba-ehealth.ca, or by telephone at 204-926-9128 (via Sharene Cooke at Manitoba eHealth) or 204-237-2381 (via Dianna Erwin at SBH Anesthesia).

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Gasline Quick Shot

Taken at this year’s Resident Research Night. From left to right: Dr. Eric Jacobsohn, Dr. Stephen Kowalski, Linda Girling, Dr. Simon Mitchell, Dr. Hilary Grocott
The transition into the clinical operations portfolio earlier this year was simplified because of the excellent structure that currently exists. Dr Trevor Lee, who had been managing clinical operations, has moved into a major new responsibility with Manitoba eHealth as Chief Medical Information Officer. We are all very grateful for the incredible effort and organization Dr Lee has dedicated to clinical operations and equally excited to see him in his new role with eHealth. His position there will be instrumental in assisting us to acquire an electronic medical record system for the operating room. Our current manpower situation is challenged again, even more so than last year. However, through a collaborative effort with the surgery program we have been able to minimize the impact on patients. If we know several weeks in advance that a particular date is going to be a problem because our regional manpower is prohibitory then we will look for open OR time (scramble slates) at the various sites and potentially close it well in advance and then move our manpower accordingly. This has resulted in only a handful of slates being cancelled, but more importantly, closed prior to patients being booked for surgery. This requires a collaborative effort between the schedulers, slating departments, surgical offices, and site leads to ensure timely communication of open OR time and then decisions about closing and deployment, ideally many weeks to months in advance. We have now evolved to a strong, centralized program that is able to respond to the needs of our patients through an integrated multisite network. The Anesthesia program has adapted to this network by ensuring we have a significant complement of multisite physicians that can be portable enough to respond to our unique community that has been politically burdened with so many surgical sites to cover. As a result of these efforts, our slate cancellation rate related to Anesthesia shortages is now at an all time low, effectively less than 1%. This is an incredible achievement given the complexities of managing our clinical, academic, and administrative responsibilities during a manpower shortage. Most of us remember only a few years ago where our slate cancellation rate due to a lack of Anesthesiologists was one of the major contributors to slate cancellations. Our weekly slate cancellation reports used to have 2 summary lines at the bottom indicating the reason for slate closure: “Anesthesia Shortage” and “Other”. Now that “Anesthesia Shortage” is such an infrequent event the “Other” category has had to undergo a much needed revision and be more inclusive and descriptive. This has helped shed light on some of the issues within the surgery program where there remain major challenges aligning OR allocation to the specific needs of our community. We all appreciate how disruptive short notice site moves can be. We try very hard to minimize the number of moves and try equally as hard to try and make sure site moves are done as far in advance so physicians can plan their lives accordingly. We have an exceptional team of schedulers: Dianna, Evelyn and June who work very closely with the site leads to ensure the process is as fair and transparent as possible. On behalf of the leadership team I would like to thank the entire department for their commitment to prioritizing patients and ensuring their perioperative care is of the highest possible standard.

Dr. Shawn Young
Associate Head, Clinical Operations
A
ge is an issue of mind over matter. If you don’t mind it doesn’t matter—Mark Twain.

My first grand rounds as a resident in Anesthesiology discussed the geriatric patient and anesthetic considerations. The World Health Organization defined the geriatric patient as the medical treatment of an individual over the age of 65. The rhetorical question I posed was, independent of co-existing medical conditions, is advanced age a disease? I had outlined in my presentation that as we age, there is decreased multisystem organ reserve that predisposes to worse perioperative outcomes making advanced age an independent risk factor for morbidity and mortality.

When I did the literature review of my grand rounds topic, I was interested in cognitive changes as we age. Crystallized intelligence in the elderly is maintained; that is, decline in long term memory, comprehension and knowledge base isn’t dramatic. However, it is known that in the geriatric population fluid intelligence which comprises the ability to think quickly through integration of short term memory, auditory and visual reaction times, declines rapidly. This had me thinking about my future as an Anesthesiologist. To be an Anesthesiologist, I would argue that fluid intelligence is critical. The ability to think quickly, react to visual and auditory cues in an emergency situation is vital to providing safe patient care. If fluid intelligence decreases as we age, what strategies and changes in practice should be incorporated for the ageing anesthesiologist for the sake of patient safety?

To answer this question, we need to outline demographics, evidence of risk to patients, and review potential policies for a dignified graduated wind down of clinical duties.

In Canada, for the first time ever, there were more persons aged 65 years and older than children aged 0 to 14 years. A record of nearly 1 in 6 or 16.1% of Canadians (5,780,900) are at least 65 years old. Recent projections indicate that the share of older persons aged 65 and older will continue to increase and account for 20.1 percent of the population on July 1, 2024.

As general Canadian ageing demographics go, our demographics for Canadian anesthesiologists follow. In Canada, nearly 12 percent of anesthesiologists are over the age of 65. Up to 27 percent of anesthesiologists are in the 55–64 age demographic. Reasons for elderly anesthesiologists continuing to practice varies, but it is clear that they are vital to help with the regional challenges of human resources, manpower and of course mentorship to younger colleagues.

Data from the Canadian Medical Protective Association demonstrates that older anesthesiologists took care of fewer patients and were involved in less complex cases. Anesthesiologists older than 65 were more likely to have litigation claims than those younger than 51 years of age (1.5 OR; 95 percent CI 1.41 to 2.67). Disability-weighted claims were even higher (1.94 OR CI 1.41 to 2.67). The increases in claims were consistent regardless of high or low acuity. Explanations for greater medico legal actions against anesthesiologists over the age of 65 include easier fatigue, decreased vigilance, deviations from standard practice and less involvement in continuing medical education. The increased incidence in litigation amongst older physicians is not confined to anesthesiologists. Older surgeons and emergency medicine physicians had higher claims made against them as well. And reasons for increased liability amongst these specialists were similar.

There are inter-individual differences in performance between clinicians. Ability should be determined on an individual basis and not related to age. A 65 year old anesthesiologist may perform better than a younger anesthesiologist. However, for older physicians who begin to feel the effects of age, emotional exhaustion from difficult cases, decreased recovery from call and practice limiting health issues,
they may not have insight into their own decline in performance.

Regulatory bodies in Canada such as the College of Physicians and Surgeons of Ontario (CPSO) and College of Physicians and Surgeons of Alberta have assessment programs in place. CPSO have non-random assessments performed on physicians in the year they reach 70. Assessments involve a chart review and, for physicians who perform poorly, a meeting with a review panel of CPSO staff who can ask questions similar to a FRCPC exam. Newer assessment models involve feedback from peers, patients, and non-physician colleagues. In the future, simulation could be used to assess the ability of older anesthesiologists.

Departmental strategies for the aging anesthesia workforce could involve offering the option to older anesthesiologists of a shorter work week, elimination of in house call duties, and changes in scope of practice to lower acuity cases. Having anesthesia assistants and residents assigned to older anesthesiologists may also be appropriate.

Within our own department, an Anesthesia Call Review Committee is actively working on policies for call reduction. Competency based assessments are not being considered at this time. The objective of the committee is to create an accommodating framework that will allow for a dignified, graduated and flexible retirement from clinical duties.


Dr. Amit Chopra
Gasline Editor in Chief

Message From The Chief Resident

It has been another busy summer and fall for the residents. We have a fantastic group of first year residents who we are very excited to welcome into the fold. They participated in the first Anesthesia Bootcamp, designed to introduce and orient new residents to the department, the operating rooms, the curriculum, and to prepare them for their first rotations. Thank you to Dr. Erika Blouw for coordinating the entire project, building it from the ground up, and thanks to all of the faculty and staff who made this a great success.

There are some new additions to the residency group which have either recently arrived or are coming soon. Ford Russell Staines (courtesy of Kenton) is just over one month old and doing very well, while Baby Wtorek (courtesy of Piotr) is coming very shortly.

Our residents are also travelling quite a bit this year. Ravi had the opportunity to join the Operation Walk team in November as they again visited Nicaragua to perform joint replacements. I also recently returned from Chandigarh, India as part of the exchange program with PGIMER, where I had a great experience including lots of excellent Indian food! Peter Inglis is looking forward to travelling to Madagascar with Dr. Reimer later this year for a Mercy Ships mission and Andrew Reda is preparing to visit Chandigarh in the spring.

Finally, as we head into the winter holiday season, there are several important upcoming resident events including a toboggan race, snow bocce, and some cross-country skiing outings. Happy Holidays everybody, and don’t forget to plug your car in.

Dr. Brian Gregson
PGY-5 Chief Resident
The editors of Gasline would like to introduce a valuable member of the anesthesia department, Alexander Villafranca, to the rest of the faculty. Alexander Villafranca has worked as a research associate for the department of Anesthesia and Perioperative Medicine since 2009. He is currently completing his doctoral degree in interdisciplinary studies (Community health sciences, Bioethics, Psychology).

Alex strives to take a polymathic approach to research: learning the methodologies of different subjects, and using this methodological “toolkit” to creatively address problems in perioperative medicine. Previously, he completed a bachelor’s degree in exercise physiology and a Master of Science degree in medical rehabilitation. This has allowed him to develop a variety of skills related to statistical analysis, survey development, and study design.

In support of his doctoral work, Alex was awarded a Manitoba Health Research Council PhD Studentship (2012-2014), a Research Manitoba Studentship (2014-2016), and two University of Manitoba Graduate fellowships (2012-2016).

During his time with the department, Alex has developed a seminar series and acted as the main facilitator to prepare anesthesiology, ophthalmology, and surgery residents for their resident research projects. Over the course of 7 years, he has directly supervised 11 junior technicians and summer students. He currently serves as a member of the Biomedical Research Ethics Board at the University of Manitoba, and as a reviewer for the Canadian Journal of Anesthesia.

Alex has been involved in a number of important collaborations under the mentorship of Dr. Eric Jacobsohn. He and Dr. Jacobsohn worked with Dr. Michael Avidan, of Washington University, and Dr. George Mashour, of the University of Michigan, on a series of papers related to the intraoperative awareness with explicit recall. This included:

A main paper (BAG-RECALL study) demonstrating that the incidence of intraoperative awareness was not decreased with Bispectral Index monitoring compared to end tidal anesthetic gas monitoring1.

A substudy demonstrating that bispectral index monitoring does not decrease the time to extubation following cardiac surgery2 in most patients. (with Hilary Grocott)

A substudy demonstrating that the Bispectral index is insensitive to a range of changes in end tidal anesthetic gas during the maintenance phase of anesthesia3. This indicates that Bispectral index monitoring cannot be used effectively to fine tune anesthetic titration.

A substudy identifying predictors of postoperative PTSD symptoms4 (with Renee El-Gabalawy)

Finally, a number of papers investigating hypothesized risk factors for intraoperative awareness. These showed that red hair5 and
right-handedness were not significant risk factors, while a previous history of intraoperative awareness was. More recently, Alex and Dr. Jacobsohn have founded the intraoperative behaviors study group. This is an international consortium of researchers from the fields of surgery, anesthesia, nursing, and psychology. This group studies the behaviors of intraoperative professionals, and strives to promote a culture of safety in the operating room. The preliminary results of a recent survey project assessing the exposure of 6200 clinicians to negative intraoperative behaviors have garnered the attention of number of international perioperative associations. This has resulted in numerous invited presentations. Five papers related to this project are under review and/or being drafted.

Alex has also pursued a self-directed stream of research examining ways to facilitate patient informed consent related to clinical research and anesthesia. For these projects, he has received several awards. This includes both the 2014 and 2015 awards for best abstract (patient safety theme) at the annual conference of the European Society of Anesthesiology. He was also a finalist for the Richard Knill award at the 2015 Canadian Anesthesiologist’s Society meeting. Most recently, he travelled to Italy to present some of his work at the annual conference of the United Nations Educational, Scientific, and Cultural Organization’s chair in bioethics. Alex is available for research-related collaboration and consultation for both faculty and residents.

Whitlock, EL, et al, Anesth Analg. 2015 Jan;120(1):87-95

Gasline Quick Shot

Taken at this years Resident Research Night. The Joe Lee Humanitarian Award in Allied Health was awarded to Susan Mortimer BMR-RRT. Susan is the Senior Anesthesia Equipment Specialist for the HSC Department of Anesthesia and Perioperative Medicine. Presented by Dr. Prakashen Govender
For our faculty spotlight the team at Gasline would like to warmly welcome and introduce Dr. Renée El-Gabalawy.

Dr. El-Gabalawy is a Clinical-Scientist and Assistant Professor with a joint faculty appointment between the Departments of Anesthesia and Clinical Health Psychology at the University of Manitoba. She also has a cross-appointment in the Department of Psychiatry.

After completing a Bachelor of Science (Hons.), Dr. El-Gabalawy completed both a Master’s and PhD in Clinical Psychology at the University of Manitoba. In 2013 as a Vanier Scholar, she completed a predoctoral research fellowship at Yale University supported by the Canadian Institutes of Health Research Michael Smith Foreign Study Supplement. The fellowship focused on research related to post-traumatic stress disorder and health.

From 2014-2015, Dr. El-Gabalawy completed a predoctoral clinical psychology residency at the Medical University of South Carolina and Ralph H. Johnson Veteran Affairs Medical Center in Charleston, South Carolina with a specialization in behavioral medicine including chronic pain, adjustment to illness, end of life care and a subspecialty in civilian trauma.

Dr. El-Gabalawy has two lines of research. The first is understanding the relationship between anxiety, trauma-related disorders (e.g., PTSD), and the impact on incidence, severity, and chronicity of physical health conditions and chronic pain. The second line of research is to understand emotional/adjustment reactions and difficulties to adverse health events such as the onset of an acute illness, major surgery (with associated complications) and intensive care unit stays. She is not only interested in negative reactions to such events but also potential positive emotional outcomes such as post-traumatic growth and resiliency. Further, she is interested in understanding which pre- and peri-health event factors might be associated with negative outcomes. Among those who have poor adjustment difficulties post-health event, Dr. El-Gabalawy is keen on developing a targeted cognitive and behavioral treatment.

Dr. El-Gabalawy’s primary objective with members in the department of Anesthesia is to be involved in innovative multidisciplinary research ranging from primary investigator roles to consultation. She would like to engage both researchers and clinicians; the latter having invaluable insight into many of the psychological processes Dr. El-Gabalawy is interested in understanding (e.g., delirium). A secondary objective is to contribute to teaching and administration through, for example, resident supervision, didactic training, and lecturing.

Currently, Dr. El-Gabalawy has several projects within the department that are underway. She is working with residents on projects related to psychiatric correlates and negative outcomes (e.g., opioid misuse, suicide) of chronic pain and chronic pain conditions in adults. As well, Dr. El-Gabalawy has ongoing and new collaborative studies in perioperative medicine examining pre- and peri-operative factors predicting poor post-operative psychiatric and physical health outcomes.

Outside of work, Dr. El-Gabalawy likes to spend time outdoors whether it is running, walking or fishing. She enjoys traveling, embracing different cultures and making time for friends and family. Finally, being active in the community and volunteerism is very important to Dr. El-Gabalawy.

On behalf of the University of Manitoba Department of Perioperative Medicine and Anesthesiology, please join us in welcoming Dr. Renée El-Gabalawy.

Dr. Renée El-Gabalawy
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I think it is timely at this point to give an overview of the evolution of Ventis. Oddly, our position as the pioneers of a program called Ventis creates a more complicated and confusing situation for us than for other programs. To set the context I should explain what Ventis is. Ten years ago, we realized that we needed a system that would allow us to share information accurately, efficiently and transparently. We contracted with DiamondL to create what we initially called APMSS and later renamed to Ventis. This system manages our whole clinical enterprise. A couple of years into the life of Ventis, we were struggling with the limitations of paper and existing electronic systems for the distribution, tracking and reporting of resident assessments. As a solution to this, we developed a new program with DL called RMP (Resident Manager Pro), which is the system that manages our assessments. To simplify things for staff, we integrated the two systems so that the user appears to only be using Ventis. When FPGME wanted an electronic system, DiamondL won the bid to create it and started to develop Ventis PGME. I was asked to lead the project to leverage lessons learned from RMP. However, it is a brand new system built on new technology from the ground up. It has been a long grind, but we currently have 15 programs fully functioning with the rest ready to be done for Dec 31. Anesthesia, however, finds itself in an ironic position. Since it is a new system, Ventis-PGME does not integrate with Ventis like RMP did. Since most programs do not have a Ventis-clinical, it accomplishes the syncing of schedules etc in a different way. In order to preserve our higher level of automation, we would have to pay for new bridging programming from Ventis PGME to old Ventis (yes I know, don’t get me started on that). Instead of paying to link to an aging system, we have opted to develop a new Ventis-clinical. This will replace the current system with a faster and more user-friendly one that will be integrated with Ventis PGME from the start. That new Ventis Clinical is a few months away, and so, although we will ultimately be back on top with the most effective total solution, we will be the last to actually fully use Ventis PGME. When the new clinical comes you will simply encounter a new interface with minimal change to daily process, and likely never know that any of the above ever happened. Just thought you should know.

Dr. Rob Brown
Associate Head, Educational Affairs

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So What Is Going On With Ventis Anyway?

Gasline Quick Shot

Taken at this years Resident Research Night. Dr. Simon Mitchell presents Dr. Darren Holland the award for the best PGY 4 research project titled “Effect of Dexamethasone Dose and Route on Duration of Interscalene Brachial Plexus Block for Outpatient Shoulder Surgery - A Factorial Randomized Controlled Trial”.

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With the transition of Cardiac Sciences to St. Boniface Hospital, the future of the Cardiovascular Thoracic Step Down unit on GA3 in the Health Sciences was unclear. Around 10 years ago the HSC Anesthesia department requested to take it over. The mandate of the unit was to provide aggressive medical care to high risk surgical patients. This care would be provided by both the patient’s own surgical team, as well as full time coverage by anesthesia. Instead of being a step down unit – a transition zone for patients from ICU to the wards, this new unit, functioned as surgical special care unit geared at accepting high risk patients immediately from PACU. The thought being - aggressive medical management could both improve outcome and reduce strain on ICU beds. Over the years the unit has been able to grow into an integral part of the HSC surgical program. Initially the unit started as a primary post-op destination for AAA patients, high risk vascular patients, and OSA monitoring. Since then, our scope has grown significantly, while still focusing on high risk patients. On any given day the patient pathology in SSCU ranges from conservatively managed epiglottitis, to a lung resection going in and out of Atrial Fibrillation, or a hysterectomy who required a massive transfusion. In short, all surgical specialties are well represented in the SSCU.

So what is it that the SSCU does differently than an ordinary step down unit? First and foremost is availability of a dedicated anesthetist to manage difficult medical patients. This allows the surgeon and their team to focus on the acute surgical issues, while trusting the anesthetist with the general medical management. We have found that an anesthetist’s knowledge of both the surgical stresses a patient undergoes with any surgery, and their skill in dealing with pain and acute care medicine makes them the ideal caregiver for high risk patients in the immediate post-op period.

As we know though it takes a team of people and the right tools to truly utilize any persons skill set. As such, the SSCU is staffed with specially trained nurses with a 2:1 ratio, physio and occupational therapy, and a dedicated unit assistant, all of whom push patients to work on their breathing, mobilize, and slowly but surely regain their independence. As far as tools goes, the SSCU like most step down units, allows for on-going invasive monitoring with arterial and central lines, telemetry and continuous oxygen saturation monitoring. Though unlike other stepdown units, in the SSCU, patients can receive nurse ad-
ministered intravenous: antiarrhythmic medications, rate control agents, antihypertensive medications, and low does vasopressors like phenylephrine. In addition to this patients can also be started on non-invasive ventilation like bi-pap.

The team and tools allow anesthetists the ability to intervene on a lot of common but potentially life threatening problems. Some of the patients we deal with most often include those going into atrial fibrillation a few days after surgery, or patients running into respiratory issues secondarily to pulmonary edema. With the ability to run low dose phenylephrine we have been able to assist in the management of patients who remain vasoplegic post-operatively. Telemetry and a high care ratio allows us to pick up on patients who may be having a cardiac event quickly and move to treatment and risk reduction rapidly. Our nursing and physiotherapy staff excel at working with patients to ensure they mobilize and work on deep breathing and coughing, all in aims to reduce post-op pulmonary complications. Initiating Bi-pap allows us to assist in the management of patients who’ve been found to have OSA in the setting of receiving narcotics for post-op pain. This is just a sample of some of the reasons patients will be managed in SSCU.

As stated earlier the mandate of the SSCU is to provide aggressive medical care to high risk surgical patients, but the question has to be asked, who is high risk? This has been an ongoing struggle both in the unit and in the field of peri-operative medicine in general. There are of course the easy patients to pick out – those with multiple cardiac risk factors or known severe cardiac disease coming for intermediate or high risk surgery. But when we move beyond that we start to enter a grey zone and as such the SSCU anesthetist is forced to make tough decisions regarding who could truly benefit from the added SSCU care. As such we’ve learned from experience that certain subsets of surgical populations typically have a more tumultuous post-op course than others and as such give special consideration to them. As well some of us have taken to using the ACS NSQIP calculator to help stratify patient risk. Going forward, isolating high risk patient populations will continue to be a hot topic in perioperative medicine and greatly affect our own practice patterns in the SSCU.

The SSCU continues to grow and diversify as a unit and with that creates new and interesting challenges for the medical staff working there to deal with. In the process of this growth, the SSCU has become an integral part of the surgical program at HSC and has truly enabled anesthetists to practice as peri-operative physicians.

Gasline Quick Shot

Taken at this years Resident Research Night. The Joe Lee Humanitarian Award in Critical Care Medicine recipient Dr. Gloria Vázques - Grande presented by Dr. Faisal Siddiqui.
As many colleagues are aware, the desire for competency-based medical education has several driving factors. Patients and society expect ever-improving, high-quality access to safe care. Physicians must constantly update their knowledge and skills to meet these demands. This can be daunting, especially given the diverse literature that exists in our specialty. A need exists to demonstrate competence, as in the case of residency training or maintenance of competence of the practicing anesthesiologist. We must demonstrate a strong commitment to our own continuing medical education, to governing bodies, and to society as a whole if we are to remain a self-regulating profession.

The section of Pediatric Anesthesia, with the support of Dr. Craig Haberman and Dr. Rob Brown, have started along this path. Recognizing that education is changing as new technologies emerge, and that our own didactic curriculum left something to be desired, we are implementing a series of web-based learning modules for the residency program. To be clear, I see these modules as a tool to enhance and supplement our current curriculum and not as a replacement in any way of the 5-year training program. That said, I am excited to present these ideas to you.

What are modules and what will they look like?
A module is a document written by an attending anesthesiologist with interest or particular knowledge of the subject area in question. The module should ideally emphasize the key points for the learner and act as an “executive summary”, based on the Royal College requirements for the specialty. We have designed 16 modules that comprehensively address the FRCPC curriculum for pediatric anesthesia. The module format allows for various media applications, including real-time access to articles, videos, lectures, presentations and other learning tools that are embedded within the document.

What are the advantages of a module approach or on-line program?
While a significant amount of work is required at the outset, modules make sense in the long run for a variety of reasons. To borrow a phrase from the Royal College, online modules are said to be “living documents”, making them easier to modify and adapt over time. There is nothing more frustrating then the feeling of “reinventing the wheel” each time with teaching and learning. Online documents obviate part of that concern. Further, modules are highly interactive, as additional resources and exercises can be appended easily.

We have incorporated clinical scenarios in our modules as well. Briefly, anesthesia cases (like talk rounds) are presented to the residents and they are charged with the task of making clinical decisions and observing the potential consequences of those decisions. As mentioned previously, we are now tasked with the increasingly important issue of accountability for learners of all types. Licensing bodies, the Royal College and the patients that depend on us expect that doctors will guarantee mechanisms exist to ensure assessment of competence. Our modules seek to address this issue by incorporating testing features. Feedback in this context is immediate for the resident, preceptor and program director alike.

What program are we using and why?
In collaboration with Dr. Jo Swartz, we sought out the assistance of the Faculty of Medicine. To our fortunate surprise Steve Yurkiw, a very capable programmer, was assigned to projects such as ours. The U of M has a program that has been used throughout the university for some time now. Formally known as D2L, the university recently renamed the program UM learn. UM learn is a web-based learning tool that was made available to us as a platform with many options for innovation.
Our choice of UM learn arose from several criteria. We wanted a program that was immediately available for use, integrated with the medical school, and most importantly, where I.T. support would be readily available. I am pleased to report that UM learn satisfies all of these requirements. The technical support provided by Steve has been outstanding. As a preceptor, you are therefore only responsible for the content of your module. Leave the formatting to Steve. One last thing about UM learn. Did I mention that it is free? Somewhere, my Scottish Grandmother is beaming with pride.

The modules at present are in their infancy 😊. Our hope is that they will become available for use by our residents in early 2016, once the appropriate revisions and formatting are completed. When they are ready for prime time, we will assign one module per week for each resident rotating through pediatric anesthesia. Preceptors will assist the residents with content and concepts related to each module. In the medium term, we also intend to add additional low and high fidelity operating room simulation scenarios to compliment the didactic topics covered within each module.

In summary, we are pleased to announce a new web-based learning tool to assist our residents with the didactic component of their pediatric anesthesia training. I feel that this format may offer promising opportunities for teaching other areas of practice within our specialty. When the modules are completed, I encourage the residents to take them for a spin.

With thanks for your consideration of the above noted ideas and article,

Respectfully,

Ian W. McIntyre MD, FRCPC, MSC

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**Anesthesia Boot Camp:** **Dr. Erika Blouw**

This year, we have organized a new rotation to help provide all incoming anesthesia residents with an introduction to residency. The objective of Boot Camp is to give first-year residents a better idea of what is expected of them throughout residency, and what they can expect to gain from their years in the program. Many other specialties are also developing similar orientation rotations, but the Department of Anesthesia is among the first at the University of Manitoba to have an official Boot Camp.

The rotation is comprised of a mix of hands-on skills sessions, simulation-based learning, and didactic seminars. A wide range of clinical and professional topics were covered in these sessions, giving residents a broad overview of how residency will shape them into well-rounded, professional, and competent clinicians. Our residents also participated as teachers in simulation sessions developed for medical students, providing them with valuable teaching exposure early on in residency.

We would like to extend a HUGE thank-you to all those who participated in the Boot Camp curriculum this year. The rotation was well-received and we are excited to continue developing the program in coming years. As this is our inaugural year, we are very interested in hearing your feedback! Please email bock.erika@gmail.com with your comments.

**GOALS AND OBJECTIVES:**

Provide incoming anesthesiaology residents with an orientation to the Department of Anesthesiology and Perioperative Medicine at the University of Manitoba

Introduce core clinical skills which will be essential to, and developed throughout, practice.

Introduce communication and teaching skills through simulation sessions both as a participant and an educator.

Provide residents with introductions into key social aspects of medical practice, including physician wellness, insurance management, and practice management.

Provide residents with focused self-directed time to complete some mandatory components of the PGME curriculum.
Physician Wellness: Dr. Daniela Goldie

Physicians have higher than population average rates of stress, burnout, emotional exhaustion and poor mental health. Burnout rates are reported to be anywhere from 25-75% and burnout is even more common in residents than faculty. A study of residents found that residents self-reported their mental health as fair or poor at a rate more than double that of the general population. These poor health indicators have dire consequences for physicians that may include substance abuse, relationship trouble, depression and even death. Many factors contribute to poor physician health and wellness including individual personality traits such as perfectionism and workaholism, poor coping strategies such as denial and avoidism. Other contributors include medical culture such as recent increases in patient demands, growing bureaucracy and decreased individual autonomy. Poor physician health may also result from involvement with emotionally-charged situations like dealing with suffering, failure, death and difficult patients or colleagues.

The World Health Organization defines wellness as, “a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.” Some consider there to be eight dimensions of wellness including emotional, environmental, financial, occupational, physical, social, spiritual and intellectual wellness.

Physician wellness is important not only to avoid some of the dire consequences related to lack of wellness but also because it leads to decreased malpractice and error rates, improved job satisfaction, and reduced stress and burnout. Healthcare systems and organizations also benefit from well physicians due to increased productivity, reduced absenteeism, reduced turnover, improved recruitment and greater retention.

Previous research has shown that promoting resident wellness, decreasing resident distress and improving resident empathy can at least partially be achieved by a formal wellness curriculum. Resident wellness curriculums provide many benefits including that they are without the controversy of other wellness initiatives such as restricted resident duty hours. They also do not interfere with patient care. Wellness curriculums are flexible and may be tailored to the needs of each particular program. They offer an area for support and may be able to identify struggling residents earlier.

The Royal College of Physicians and Surgeons of Canada have taken an active role in physician wellness and now include Physician Health under the CanMEDS Professional Roles. Starting this year the Royal College require this competency to be met as part of Competency Based Education programs.

Over the last five year Dr. Anita Chakravarti created a wellness curriculum at the University of Saskatchewan Department of Anesthesia. This curriculum consists of both formal modules and informal practices. Formal modules include grand rounds and resident academic day presentations that have clear objectives. Informal practices include resident social events, physical activity groups, and peer support for both residents and faculty. Informal practices are continually evolving as the needs and interests of the group change.

Based on the success of the program at the University of Saskatchewan, Dr. Chakravarti and I have been working to create a wellness curriculum for our residents that will formally run over six sessions from September 2015 until May 2016.

The first part of the curriculum was rolled out in September starting with a Visiting Professor dinner on mindfulness in the operating room. We started the resident curriculum with an introduction to physician wellness and a lifestyles module addressing fatigue and sleep management, time management, stress management, nutrition and peer support. The next module is on promoting professionalism that Dr. Mani Bhangu has gracially
agreed to facilitate. In January we hope to coordinate a grand rounds presentation with the resident module on promoting mental health. This module will also include a mandatory resident wellness night on addictions. Residents’ significant others will be invited to this event. The module in March will be on the finances and “business” of anesthesia as well as life-cycle transitions such as moving from residency to staff. Our final module for the year will be on adverse events and will include a grand rounds presentation from Dr. Chakravarti to the department.

We conducted a pre-roll out survey with the residents and continue to accept feedback on each of the sessions in order to make these modules as applicable and useful for the residents as possible. It is our aim to have very little didactic formality and more to engage residents with discussion around many of these topics. So far the residents have indicated that they appreciate this format.

Dr. Chakravarti will be offering mindfulness sessions in October, November, January and May. I will be sending out a general email to notify anyone who may be interested or people can contact me (umgoldid@myumanitoba.ca) to let me know of your interest. I encourage those who have not tried mindfulness to try a session!

My focus this year is on the resident curriculum but it is my hope that as we engage residents, offer grand rounds presentations and discussion on these topics that there will be enough interest that people will volunteer to organize and coordinate a program for faculty as well. Thank you to everyone who has already shown your support, expressed your interest in this area and offered your help. Please feel free to contact me with any questions or concerns (umgoldid@myumanitoba.ca).

References:


Gasline Quick Shot

Taken at this year’s Resident Research Night. Dr. Simon Mitchell presents Dr. Brian Gregson the award for the best PGY 5 research project titled “MRI CO2 Stress Test in Adolescent Concussion”.
The academic year is in full swing and there are many exciting things happening. We recently had our annual Department research night which was a huge success and a tremendous showcase of the quality and amount of research going on in the department. I would like to congratulate all of the participants on their excellent presentations. Likewise congratulations to Darren Holland and Brian Gregson for receiving the awards for best research in progress and completed research projects respectively. Congratulations also to Cameron Goldie for his receipt of the Dr. Ben Schell award for best overall research project. We owe a huge thank you to Linda Girling and the research office for their organization of the evening and their help throughout the year in keeping everyone on track. To the many mentors and project supervisors - thank you for your commitment and continued work with and support of the resident research endeavour – your efforts continue to make our department something to be proud of.

CaRMS is rapidly approaching and this year we will be offering 6 Canadian Medical Graduate spots, one of which will be for the Brandon stream. CaRMS interview dates this year will be on January 22 & 23 with the CaRMS social event being held on the 23rd.

We have had a successful launch of the Brandon stream this academic year with Peter Benoit being our first resident there. The faculty in Brandon have been very enthusiastic and engaged in helping to ensure the success of this new stream. We are excited to see how this continues to evolve and look forward to having another resident starting there next year.
Nationally efforts are ongoing with the Royal College to move toward a competency based curriculum. The planned date for roll out of this across the country for anesthesia is 2017. Dr. Jason Frank from the RCPSC will be presenting Grand Rounds to our department in May on this topic.

We would like to take this opportunity to thank Dr. Brian Gregson for serving as the chief resident. Brian has done a terrific job and it has been a true pleasure working with him in that role. Thanks for all of your hard work on behalf of the department and for the residents. With Brian finishing his term as chief, Dr. Darren Holland will move into position of chief resident. Darren has done an excellent job as co-chief resident and we are very pleased to have him be the chief resident. With Darren vacating the role of co-chief we are very pleased to announce that Dr. Ravi Jayas will be assuming the position of co-chief resident. Congratulations Ravi and we look forward to working with you.

Thank you to all of the faculty for your efforts in making the residency program a success and to all the residents, thank you for all of your hard work on our behalf. I would like to extend warmest Holiday wishes to all!

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Gasline Quick Shot

Taken at this years Resident Research Night. The Dr. Ben Shell Award presented by Dr. Simon Mitchell to Dr. Cameron Goldie. Dr. Goldie's research project was titled “Postoperative Visual Loss May Commonly Occur Post-Hospital Discharge” and won best research presentation overall.
The 2015 Operation Walk mission marked the fourth yearly trip that the Winnipeg based team made to Managua, Nicaragua. The temperature and humidity the week of November 7-14 were a tad higher than in Manitoba.

Operation Walk is a program where an entire medical team travels to places to replace hips and knees for those in need. Canada has two teams: London, Ontario and Winnipeg, Manitoba. About 65 Health Care Professionals (Surgeons, Anesthesiologists, Internal Medicine, Physiotherapy, Interpreters, Surgical Assists, Ward Nurses, OR Nurses, Medical Device Reprocessing, and Medical Implant Representatives) join together and work exceptionally hard to change the lives of those less fortunate and in need of joint replacement surgery.

This year was the best year that we have had, in terms of productivity. A total of 70 joints were operated on (68 knees, 1 hip, and 1 "mimi revision" on a knee which was replaced last year). All of this was accomplished in 3.5 days of operating time.

The anesthesia team this year consisted of: Dr. S. Sethi, Dr. J. Pretorius, Dr. D. Lieberman, Dr. C. Pickering, and myself. The Anesthesia Resident who joined us on the trip this year was Dr. R. Jayas. All I can say is, “What a fantastic
team of Colleagues I had the privilege of working with on this trip!”. This was Dr. Sethi’s fourth Operation Walk trip, Dr. Pickering’s third, and Drs Lieberman and Pretorius’ first. Please talk to us about our experiences. A HUGE thanks goes to Regina Kostetsky who contributed a lot of her time and effort putting together our medication and equipment for the trip.

The purpose of the trip is to better the lives of people we meet. One memorable experience stands out, which I think sums up why we do these missions. A young lady, essentially immobile due to severe JRA (affecting knees and hips) and in constant pain, heard of our mission and travelled for two days, from the other side of Nicaragua, with her young daughter in the hopes of having joint replacement surgery. It was determined that she required hip surgery before knee surgery. Our trip was prepared to accommodate knees only. But because of a great team, and donations made on the spot, we were able to replace her most diseased hip. We also ensured her daughter was looked after while her mother was in the hospital. The team also made certain that the pair were able to get home appropriately after hip surgery. This could not have been possible without a team effort.

In addition to joint surgery, we were also able to provide a rural school of about 50 children with new backpacks and a year’s worth of school supplies.

To quote Dr. T. Turgeon, “We see pain and disease at home, but what we don’t see is desperation.”. To witness the transformation from immobile to mobile, and pain to pain free cannot be put into words. To see patients go through their bilateral knee surgery, and then see them ambulating 2 hours post surgery is nothing short of spectacular.

The hope is to return for another mission next year. Stay tuned for our fund raising initiatives and Gala Dinner. Follow us on Facebook.

Dr. Kelvin Williamson


Grocott HP. Implementing and measuring change to enhance perioperative outcomes. Can J Anaesth. 2015 May;62(5):441-3


Announcements

New Faculty

WRHA
September 1, 2015
Ravi Kumbharathi

December 2015:
Sudarshana Rao

January 2016:
Jennifer Plester

Brandon
July 1, 2015:
Mairi Chadwick
Simon Louis de Wit
Iwan Levin
Philip Rudolph Moller
Len Skead
David Turner
Bruce White
Clint Wong

Births:
Daniela & Cameron Goldie - Son
Ruan Duff Goldie

Kenton Staines - Son Ford Staines

Rick Singh - Daughter Asha Singh

Raja Rajamohan - Daughter Kyra Rajamohan

Peter Wtorek - Daughter Penelope Wtorek

General Announcements:

Dr. Heather McDonald has assumed the role as Medical Manager of the ACAP team as of July 1, 2015.

Dr. Shawn Young has assumed the role of Associate Head, Clinical Operations. He will continue as Co-Site Leader at the Victoria General Hospital.

Dr. Trevor Lee has assumed the position of Chief Medical Information Officer with Manitoba E-Health

Dr. Eric Jacobsohn is the recipient of the Canadian Anesthesiologists’ Society national 2015 Clinical Teacher Award. The Clinical Teacher Award recognizes excellence in the teaching of clinical anesthesia

Best PGY5 Award for a Completed Research Project was given to Dr. Brian Gregson

Best PGY4 Award for Research-in-Progress was given to Dr. Darren Holland

Genevieve Krahn is now the Administrative Manager of the Anesthesia Department, Congratulations Genevieve!!

Fellowships:

Dr. Maxime Fortin - Verreault completed his residency training at the Univerite Laval in Quebec in 2014, He is currently working as an anesthetist in Thetford Mines, Quebec. He will be commencing and Interventional Chronic Pain Fellowship January 14, 2016. Fellowship Director: Dr. Jamit Dhaliwal

Dr. Jeetinder Kaur Makkar is joining us from Chandigarh, India. She completed her Anesthesia training at the Postgraduate Institute of Medical Education and Research (PGIMER) in the field of Chronic Pain. Dr. Makkar will be commencing an Interventional Chronic Pain Fellowship January 2016. Fellowship Director: Dr. Jamit Dhaliwal

The Joe Lee Humanitarian Award in Critical Care Medicine 2015 has been awarded to Dr. Gloria Vásquez - Grande

The Joe Lee Humanitarian Award in Allied Health has been awarded to Susan Mortimer

The Ben Shell Award for Best Overall Research Project has been awarded to Dr. Cameron Goldie