

















DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE

2010-11 Annual Report







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Thoracic and Vascular Anesthesia

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MESSAGE FROM THE DEPARTMENT CHAIR AND CHIEF 2010-2011

By Dr. Davy Cheng, Department Chair and Chief

THE DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE (DEPARTMENT) OF THE SCHULICH SCHOOL OF MEDICINE AND DENTISTRY, THE UNIVERSITY OF WESTERN ONTARIO (UWO) PROVIDES CLINICAL SUPPORT TO 40 OPERATING ROOMS PER DAY AT THE LONDON TEACHING HOSPITALS. We also provide the spectrum of medical care from conducting preoperative anesthesia assessment to performing the most advanced lifesupporting techniques in all perioperative settings such as ambulatory surgery, subspecialty surgery, obstetrics, pediatric care, out-of-OR interventional procedures (cardiology, neurology, electric convulsion therapy), acute and chronic pain management, blood conservation management, post-anesthetic care unit, cardiac surgery recovery unit, intensive care units and palliative medicine in acute care.

Our Department is amongst the top five academic anesthesiology departments in Canada and has an International reputation for academic excellence in Research and Education. The Evidence-Based Perioperative Clinical Outcomes Research (EPiCOR) Program has established our Department and UWO as a national evidence-based knowledge translation centre with high impact to health care decision-making and patient care. The Department provides clinical training and didactic teaching to undergraduate (UGE) and postgraduate (PGE) trainees in anesthesia and allied health care fields both at UWO and Out-Reach Community Programs. The Anesthesia Simulation Program at CSTAR (Canadian Surgical Technologies & Advanced Robotics) led by Anesthesia provides training for UGE, PGE and allied health professionals in critical event management and opportunities for education research in this area. The Department is well known for its clinical and research excellence in

cardiac anesthesia, neuroanesthesia, transplantation, critical care, perioperative blood management, and pain medicine. The Department has been attracting clinical/research fellows and visiting scholars from around the world (Australia, New Zealand, UK, USA, Germany, Singapore, Korea, China, Thailand, Columbia, Egypt and Saudi Arabia) for training in anesthesia and perioperative medicine, as well as critical care medicine.

The leadership of our faculty is recognized Nationally and Internationally. They have been awarded Canadian Anesthesiologists' Society's CAS Gold Medal (Wojciech Dobkowski), CAS Research Recognition Awards (John Murkin, Davy Cheng), CAS John Bradley Young Educator Award (Jeff Granton), CAS David Sheridan Research Awards (Daniel Bainbridge, Ronit Lavi), Member Appreciation Award of the Canadian Standard's Association (Steven Dain), YWCA Women of Distinction Award (Su Ganapathy). They have been inducted as Fellows of the Royal College of Anaesthetist's in

Ireland (John Murkin), the Canadian Academy of Health Sciences (Davy Cheng), and honoured with an Outstanding Contribution Award for Chinese Anesthesiology in China (Davy Cheng). They have been elected as Canadian Board Member in the International Anesthesia Research Society (Davy Cheng), NIH Protocol Review Committee (John Murkin), Vice-Chair Royal College of Surgeons and Physicians of Canada (RCSPC) Anesthesiology Examination Board (Sandra Katsiris). President of the Association of Canadian University Departments of Anesthesia (Davy Cheng), CAS Research Committee Chair (Neal Badner), OMA Anesthesia Chair (Jim Watson), and LHIN Critical Care Lead (Michael Sharpe). They have been appointed Chair of the Regional Advisory Committee of the RCPSC (John Fuller), Member of the Canadian Task Force Addressing Tertiary Pain Clinic Wait time and

leading the establishment of Pain Specialty Certification at the RCPSC (Pat Morley-Forster). They have been invited to present and to submit a white paper to the Canadian Parliamentary Committee on Palliative and Compassionate Care (Valerie Schulz) and on Health Technology Assessment (Janet Martin).

In March 2010, Leaders within the Department, senior hospital and Schulich officials met together for a departmental leadership retreat. Four key strategic foci of the Department were discussed and planned: (1) Clinical Service Model Post Milestone 2 (consolidation of obstetric and neonatology care from SJHC to LHSC-VH), (2) Patient Safety/Quality Improvement, (3) Education, and (4) Research.

In June 2010 the Department underwent an external review by Dr. Michael Murphy (Halifax) and Dr. Brian Kavanagh (Toronto). They noted that the last ten years

have brought substantial changes to the structure and culture of the Department of Anesthesia and Perioperative Medicine at UWO. It is important to note the significance of these changes as they relate to the camaraderie, academic success and improvement in the national/international reputation of the Department. This has been associated with an expansion of the residency training program from 24 to 45 residents (43% female), the fellowship training program from 2 to 12 clinical anesthesia fellows, and a renewed involvement of the Department in the undergraduate medical education program. Perhaps most importantly, an extensive recruitment drive, particularly the last five years, has led to an increase in the number of faculty from 42 to 78. The Department has increased the number of females on faculty (26%) and in leadership roles (9 of 16 programs) in the past 9 years.

THE LAST TEN YEARS HAVE BROUGHT SUBSTANTIAL CHANGES TO THE STRUCTURE AND CULTURE OF THE DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE AT UWO



THE RESIDENCY

TRAINING PROGRAM

INCREASED FROM

24 TO 45 RESIDENTS

23456789101112

The fellowship training program has grown from 2 to 12 clinical anesthesia fellows

PERHAPS MOST IMPORTANTLY, AN **EXTENSIVE RECRUITMENT**

FACULTY RECRUITMENT AND PROMOTION

Congratulations to Drs. Shalini Dhir, Philip Jones and Tim Turkstra who were promoted to the rank of Associate Professor with Continuing Appointment in the Provost stream, effective July 1, 2011.

Dr. Peter Mack joined the Department in July 2010 upon completion of his Residency and a Regional Anesthesia Clinical Fellowship in our Department. His area of focus is Education Research. Dr. Mack is based at University Hospital and is part of the Regional Anesthesia and Acute Pain group.

Our Department is pleased to welcome five of our recent Residents who are joining the Department early in the 2011-12 academic year. Effective July 1, 2011, Dr. Andreas Antoniou and Dr. Ida Bruni will start their careers, providing training in the Critical Event Simulation Program Both have completed a one year Fellowship in our Department in our Department's Simulation Program and will enable expansion of this valuable education experience for residents, medical students and other health care professionals. Dr. Vanessa Fantillo also joins our Department on July 1, 2011 as a full time anesthesiologist, following a one year combined Fellowship in Paediatric Anesthesia at Sick Kids in Toronto and here in London. Dr. Fantillo's focus in paediatric anesthesia and future collaboration with the Department of Paeditrics will result in better patient outcomes at the Children's Hospital in London. Dr. Collin Clarke is returning on September 1, 2011 from a one year Fellowship in Chronic Pain Management at Duke University in North Carolina, USA. Dr. Clarke will provide innovative chronic pain patient care in our Pain Clinic at SJHC, and will be expanding his research in this area. On October 1, 2011, Dr. Kristine Marmai will begin as a full time anesthesiologist focusing on Obstetric Anesthesia. She completed a one year Fellowship in our Department in Obstetric Anesthesia and will be part of the obstetric group working in the new consolidated obstetric facilities at Victoria Hospital which were completed in June 2011.



THE LEADERSHIP OF OUR FACULTY IS RECOGNIZED NATIONALLY AND INTERNATIONALLY

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DEPARTMENT COMMITTEES AND ROLES 2010-2011

Davy Cheng, Chair/Chief Lois Hayter, Administrative Officer William Sischek, Site Chief (SJHC) Christopher Harle, Site Chief (UH) George Nicolaou, Site Chief (VH)

Administrative & Program Support Staff

J Allaer, J Anderson, K Bilton, L Gibson, M Harrington, L Hinchliffe, K Hunter, B McConnell, J Moodie, C Pollard, M Portokalis-Valeriote, V Rapson, L Szabo, M Twiddy, C White, C Worsfold

Departmental Council

Davy Cheng (Chair), Kevin Armstrong, Ron Butler, Michael Currin (Elected Rep.), Jeff Granton, Christopher Harle, Ivan Iglesias, Philip Jones (Elected Rep.), Sandra Katsiris (Elected Rep.), John Murkin, George Nicolaou, William Sischek

Academic Affairs Committee

Kevin Armstrong (Chair), Neal Badner, Daniel Bainbridge, Geoff Bellingham, Davy Cheng, Sandra Katsiris, James Watson

Research Committee

John Murkin, (Chair) Neal Badner,
Daniel Bainbridge, Davy Cheng,
Su Ganapathy, Philip Jones, Ronit Lavi,
Janet Martin, Craig Railton

Anesthesia Quality Assurance

Ian Herrick, Director
Geoff Bellingham (SJHC),
Steven Dain (UH), Michelle Gros (VH),
Christopher Harle (Site Chief Rep.),
Ronit Lavi (UH), Craig Railton (VH),
Indu Singh (SJHC), Rebecca Ashcroft
(Anesthesia Resident Rep.)
Joanna Dion (Anesthesia Resident Rep.)

EDUCATION PROGRAMS

Undergraduate

Ivan Iglesias, Director
Pravin Batohi, SJHC Coordinator
Michelle Gros, VH Coordinator
Peter Mack, UH Coordinator

Postgraduate

Jeff Granton, Director

Sandra Katsiris, Associate Director
Paidrig Armstrong, SJHC Coordinator
Rosemary Craen, UH Coordinator
Rooney Gverzdys, VH Coordinator
Indu Singh, Resident Research Coordinator
Richard Cherry, Resident IT Coordinator
Ryan Smith, Resident Representative
Mark Soderman, St. Thomas
Alfred Roberts, Windsor Program
Farah Manji, Resident Representative
Jen Landry, Resident Representative
Ryan Smith, Resident Representative

Fellowship

Miguel Arango, Director
Richard Cherry, Simulation
Pat Morley-Forster, Chronic Pain
Rosemary Craen, Neuroanesthesia
Wojciech Dobkowski, Liver Transplant
Sugantha Ganapathy, Regional Anesthesia
George Nicolaou, Thoracic and
Vascular Anesthesia
Indu Singh, Obstetric Anesthesia
Ravi Taneja, Cardiac Anesthesia

Journal Club Conveners

Philip Jones, Timothy Turkstra

Continuing Medical Education

lan Herrick, Director

Rounds Coordinators

Ian Herrick, Citywide Grand Rounds
Achal Dhir, UH Site Rounds Coordinator
Rooney Gverzdys, VH Site
Rounds Coordinator
Paidrig Armstrong and John Parkin,
SJHC Site Rounds Coordinators
Shalini Dhir, Rounds Coordinator –
Regional Anesthesia Rounds
John Fuller, Rounds Coordinator –
Perioperative Grand Rounds
Lois Champion, Rounds Coordinator –
Diagnostic & Therapeutic Rounds
Pat Morley-Forster, Rounds Coordinator –
Interdisciplinary Pain
Ivan Iglesias, Rounds Coordinator – TEE

Anesthesia and Critical Care Teaching Through Simulation (ACCTTS)

Richard Cherry, Director Ron Butler, Lois Champion, Brian Church, Jeff Granton (Members)

Anesthesia Assistants Program

Jim Watson, Director and SJHC Coordinator Fiona Ralley, UH Coordinator Kevin Teague, VH Coordinator

Physician Assistant Training - Military

Kevin Teague – VH Coordinator and Military Liaison

Anesthesia Equipment Coordinators

Paidrig Armstrong (SJHC) Jason Hoogstra (VH) Philip Jones (UH)

CLINICAL ACADEMIC PROGRAMS

Acute Pain & Regional Anesthesia

Kevin Armstrong, Director
Sugantha Ganapathy, Research Director
Shalini Dhir, SJHC Site Coordinator
Kate Ower, VH Acute Pain
Service Coordinator

Ambulatory Anesthesia

lan McConachie, Director

Cardiac Anesthesia

Daniel Bainbridge, Director John Murkin, Research Director Ivan Iglesias, TEE Coordinator

Chronic Pain

Pat Morley-Forster, Director

Critical Care Program

Cardiac Surgery Recovery Unit –
Ron Butler, Director
MSICU – Michael Sharpe, Lois Champion,
Ron Butler, Jeff Granton, Ravi Taneja

Evidence-Based Perioperative Clinical Outcomes Research (EPiCOR)

Janet Martin, Director Davy Cheng, Co-Director Daniel Bainbridge

Liver Transplant

Wojciech Dobkowski, Director

Medical Informatics

Steven Dain, Director

Neuroanesthesia

Rosemary Craen, Director

Obstetrical Anesthesia

Sandra Katsiris, Director

Palliative Medicine

Valerie Schulz

Pediatric Anesthesia

Mohamad Ahmad, Director

Perioperative Blood Conservation

Fiona Ralley, Director

Pre-Admit Clinic

Neal Badner, Director and VH Coordinator Rakesh Bhandari, UH Coordinator John Parkin, SJHC Coordinator

Thoracic and Vascular Anesthesia

George Nicolaou, Director

ANESTHESIA FELLOWS

Dr. Andreas Antoniou,
Simulation Teaching [Canada]

Dr. Anwar Yanbawi

Neuroanesthesia [Saudi Arabia]

Dr. Bin Wern Hsien

Chronic Pain [Singapore]

Dr. Danielle Stothart

Regional Anesthesia [Canada]

Dr. Hesham Youssef

Vascular/Thoracic Anesthesia [Egypt]

Dr. Ida Bruni

Simulation Teaching [Canada]

Dr. Jon Brookes

Regional Anesthesia [England]

Dr. Kanwar Baloria

Cardiac Anesthesia [India]

Dr. Kristine Marmai

Obsetrical Anesthesia [Canada]

Dr. Pratyush Gupta

Transplant Anesthesia [India]

Dr. Rajarathinam Manikandan Chronic Pain [India]

Dr. Raviraj Raveendan

Transplant Anesthesia [India]

Dr. Rujin Zhang

Cardiac Anesthesia [China]

Dr. Samer Al-Ghazaly

Transplant Anesthesia [Egypt]

Dr. Unnikrishnan Pappu

Cardiac Anesthesia [India]

Dr. Yasuhisa Okamoto

Cardiac Anesthesia [Japan]

VISION AND MISSION STATEMENT

The Vision and Mission of the Department of Anesthesia and Perioperative Medicine, London Health Sciences Centre and St. Josephs Health Care, London, The University of Western Ontario is to be an internationally acclaimed academic department in anesthesia, pain management and critical care. We strive to provide exemplary patient care and foster excellence in anesthesia delivery, research and education at the undergraduate and postgraduate levels, and in continuing medical education at regional, national and international levels.



SITE CHIEF REPORTS 2010-2011

St. Joseph's Health Care, London

By Dr. William Sischek, Site Chief

This year marked a final milestone event for St Joseph's Health Care with the program transfers of Obstetrics and Neonatology to the LHSC Victoria Hospital. While this move was long anticipated, it was still a remarkable and exciting event, marked by its well coordinated and executed logistics for patient care. The long awaited event was also a time for reflection on the decades of Obstetric and Perinatal care delivered by SJHC. There were some very nostalgic moments passed around the time of the move on June 4 and 5, 2011.

With the completion of that move, SJHC is now positioned to fully engage its revised role within the context of a citywide department. It is the home of the Chronic Pain and Regional anesthesia programs. It is building to be a centre of excellence as an Ambulatory Care Centre. The Department is serving the Hand and Upper Limb Centre, the Urology, Otolaryngology and Ophthalmology programs sited there. This year we are also undertaking an expanded role in the provision of endoscopy services in cooperation with the Department of Medicine's Division of Gastroenterology.

All of these initiatives now require an even higher level of integration of the Department staff citywide as we strive to provide the best of care by bringing many diverse skill sets together in the setting of SJHC. The increased interaction of the staff from both the University and Victoria Hospitals helps to ensure the highest caliber of patient care in the outpatient setting. This, combined with the recently completed, modern surgical suites, help to make SJHC a showpiece centre for the Department of Anesthesia and Perioperative Medicine. As we look to the year ahead there are several new program initiatives which are anticipated to build on these early changes in the model of care delivery we have previously seen.

LHSC - University Hospital

By Dr. Christopher Harle, Site Chief

University Hospital is a major quaternary referral centre and teaching facility within the University of Western Ontario. We provide anesthesia for cardiac surgery, neurosurgery, general surgery, orthopedic surgery, sports medicine, plastic surgery, urological surgery and ear nose and throat surgery. We are a major transplantation centre, and service cardiac transplantation, liver transplantation and kidney transplantation. We are actively involved in the provision of anesthetic support for procedures in the interventional radiology suite, the cardiac catheter labs and the electrophysiology labs. We have a strong departmental presence in critical care with faculty members working in both the medical and surgical critical care unit as well as the cardiac surgery recovery unit. We provide ongoing support for a busy preadmission clinic and we have a flourishing regional anesthesia program and acute pain service. We have a dedicated perioperative Trans Esophageal Echocardiography Service.

THE DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE, THE SCHULICH SCHOOL OF MEDICINE AND DENTISTRY, THE UNIVERSITY OF WESTERN ONTARIO PROVIDES CLINICAL SUPPORT TO 40 OPERATING ROOMS PER DAY AT THE LONDON **TEACHING** HOSPITALS The Department of Anesthesia and Perioperative Medicine is actively involved in developing and supporting new and innovative surgical approaches to complex disease processes, in particular we are involved in implantable cardiac support programs, novel surgical approaches to aortic valve diseases as well as robotic surgery for cardiac, hepatobilliary, renal, and head and neck surgery.

At present we have 16 operationalized operating rooms, and have recently opened a new state of the art minimally invasive surgical suite. We have one of the first hybrid cardiac surgical facilities in Canada and have the first North American robotic arm neuro-angiography equipped operating room.

We train Residents and Fellows in Cardiac Anesthesia,
Perioperative Trans Esophageal Echocardiography, Neuroanesthesia,
Acute Pain Management, Regional Anesthesia, Airway Management
and Liver Transplantation. We also train residents at all levels of
training in general anesthesia both from within our own residency
program and from other disciplines.

University Hospital has embraced the Anesthesia Care Team model and are grateful for the support and assistance we receive from our Anesthesia Assistant colleagues who help us in the Operating Rooms, the Block Room and in our out of Operating Room anesthesia locations enhancing patient care, safety and adding sustainability to our work patterns.

The University Hospital site is the base for many ongoing and proposed research projects, and our Faculty are actively involved in a wide range of research projects including many prestigiously funded projects.

Our Department is particularly proud of Dr. Wojciech Dobkowski who was recognized Nationally this year as the recipient of the Canadian Anesthesiologists' Society's Gold Medal, which is the highest award of our society, and is given in recognition of excellence in matters related to anesthesia.

LHSC - Victoria Hospital

By Dr. George Nicolaou

The Department of Anesthesia and Perioperative Medicine at Victoria Hospital, provides clinical service for vascular, thoracic, orthopedic (trauma and spine), plastic (including craniofacial), ENT, urologic, oncologic, general surgical and pediatric (ENT, general, urologic, neurosurgical and plastic) surgery. We also have a well established acute and chronic pain service. In addition, we provide anesthetic services for out-of-OR procedures such as endoscopy/colonoscopy, MRIs, CT scans, interventional radiology, diagnostic/therapeutic lumbar punctures, bone marrow aspirates, kidney biopsies, bronchoscopies and any other out-of-OR procedure that might require sedation. Victoria Hospital also provides anesthesia services for all obstetrical patients in the city of London. The site's emphasis is the clinical teaching of residents, medical students, fellows and allied health professionals. This includes the use of a well established anesthesia simulator program.

ANESTHESIA RESOURCES

As a result of ongoing reconstruction at Victoria Hospital, Dr. Cheng and I have been able to secure new and expansive office space for the Anesthesiologists. We have modernized this new space with increased computer access, an up to date library, and a formal classroom/team room that utilizes SMART Board technology.

THORACIC/VASCULAR ANESTHESIA

Both subspecialties have flourished and remain popular as resident rotations and as fellowship training programs Vascular surgery here has become a world leader in the endovascular management of thoracic aortic disease. Thoracic surgery has also become a world leader and boasts one of the largest series in Video Assisted Thoracic Surgical procedures. Several recent clinical research projects in these subspecialties have been completed, and others involving Video Assisted Thoracic Surgery (VATS) and pressure-limited one-lung ventilation are underway. Currently, we are investigating the use of spinal oximetry to detect decreases in spinal cord blood flow, along with different treatment modalities to decrease the incidence of paraplegia. A previous project led to a change in the postoperative epidural analgesia solution utilized.

PEDIATRIC ANESTHESIA

This division is under the guidance of Program Director, Dr. Mohamed Ahmad, with input from members of the Pediatric Anesthesia subspecialty group. We currently support three dedicated pediatric surgery operating rooms on a daily basis. In addition, we are increasing our involvement in out-of-OR settings which include endoscopy/colonoscopy, MRIs, CT scans, interventional radiology, diagnostic/therapeutic lumbar punctures, bone marrow aspirates and any other procedure that is amenable to sedation. We have also implemented a Parental Presence at Induction program in conjunction with the hospital's Child Life Program, and have expanded pediatric preoperative assessment and postoperative pain management services.

Pain management for pediatric patients with epidurals on the ward is both offered and supported. Residents and interested staff continue to participate in the nationwide telemedicine conferences hosted by the Hospital for Sick Children, Toronto, ON.

OBSTETRICAL ANESTHESIA

Dr. Sandra Katsiris, the citywide Obstetrical Anesthesia Director, has successfully introduced a citywide standardized obstetrical anesthesia care approach including standardized epidural solutions, PCA, PCEA and postoperative pain management. With the consolidation of all obstetrical services in London at Victoria Hospital, the volume of births in this level 3 unit is expected to increase to over 6,000 deliveries per year. This will make Victoria Hospital the second busiest obstetrical unit in the province.

SIMULATION

The Simulation Program continues to thrive under the guidance of Dr. Richard Cherry. The program continues to deliver simulation-based crisis management training to anesthesia and critical care residents, as well as expanding the program to include more undergraduate medical students and surgical residents. Research collaboration is gaining momentum along with the general awareness and interest in healthcare simulation.

Finally, ongoing support of our Anesthesia Assistants program is at the heart of how we are able to increase our out-of-OR commitments. We believe this initiative has been beneficial for all and should continue well into the future.

THE VICTORIA
HOSPITAL SITE'S
EMPHASIS IS THE
CLINICAL TEACHING
OF RESIDENTS,
MEDICAL STUDENTS,
FELLOWS AND
ALLIED HEALTH
PROFESSIONALS

THE DEPARTMENT HAS EVOLVED OVER THE PAST 10 YEARS INTO A MUCH MORE INTEGRATED **FUNCTIONAL** ACADEMIC GROUP, WITH DEPARTMENT MEMBERS FROM VARIOUS SUBSPECIALTY **INTEREST AREAS** NOW ASSIGNED TO WORK AT ANY OF THE FOUR **CLINICAL SITES**

Citywide Clinical Coordinator Report

By Dr. William Sischek, newly appointed Citywide Clinical Coordinator

The position of Citywide Clinical Coordinator is a new position as of April 1, 2011. This executive position was created to support the Chair/ Chief in response to a number of clinical challenges identified in the Department in the restructuring of London Health Sciences Centre (LHSC) and St. Joseph's Health Care, London (SJHC). The Model Post Milestone 2 (M2P2) move of Obstetrics and Neonatology to Victoria Hospital (VH) and the reconfiguration of the St. Joseph's Health Care, London necessitated strategic clinical realignments in our citywide Department.

The Department has evolved over the past 10 years into a much more integrated functional academic group, with department members from various subspecialty interest areas now assigned to work at any of the four clinical sites (SJHC, UH, VH and the Regional Mental Health Centre) on any given workday. This movement of staff has required a reassessment and policy construction to accommodate the issues presented by that scenario. Working collaboratively with the Site Chiefs at University and Victoria Hospitals and with the support and guidance of the Chair/Chief, we have been able to achieve a better appreciation and planning of human resources for the city. It has been a challenge to help some staff members reestablish on a new site while at the same time facilitating others to continue their site based work at their original or even a new location. In addition, we have begun to address the questions surrounding on call service allocation and access by staff members which accompany such a mobile work force. The ongoing mantra of "We are a function-based department, not a site-based group" continues to motivate our change processes going forward.

One new initiative in the Department over the past few months has been the Comprehensive Pain Management Program. While still in its early stages at this point, it is intended to bring together the expertise of the Acute, Chronic and Palliative Care Pain services as well as the Regional Anesthesia group. The goal is to elevate the profile and quality of care for the wide range of patient care groups represented in an integrated, patient centred fashion, paying attention to the currently growing use of narcotics in our society. Narcotics are now prevalent both for best option pain care legitimately as well as illicit use and impact perioperative and chronic care practices. The role and profile of invasive regional anesthesia techniques is intended to augment care and, by bringing these multiple subspecialty groups in the Department together intellectually, the goal is a best model of patient care.

We will be looking forward to a greater acknowledgement of certain subspecialty clinical working groups as they build their academic and clinical profiles in our system over the coming year. The recent recruitments of several new consultants with a wide variety of subspecialty interest areas promises to be an exciting opportunity for the whole Department as it moves forward. The position of Citywide Clinical Coordinator is intended to help facilitate these and other advancements.

CLINICAL ACADEMIC PROGRAMS

Acute Pain Service and Regional Anesthesia

By Dr. Kevin Armstrong, Director with Dr. Sugantha Ganapathy, Research Director

The following is a list of activities carried out from July 2010 to July 2011 as they relate to the Acute Pain Service and Regional Anesthesia services at the University of Western Ontario, Department of Anesthesia and Perioperative Medicine.

- St. Joseph's Health Care, London site was the location for a trial of APS electronic order sets as a quality initiative and with funding from AMOSO. St. Joseph's was chosen because of its relatively small size, a single location for inpatients and the current process for managing physician orders. Over the period of a month, electronic orders were generated by two APS physicians. These orders were printed and signed by the physician and then processed as other orders currently are. Feedback was generally positive from nursing, pharmacy, ward clerks and physicians. There continues to be a need for a system wide adoption of resources as we move into computer-provider order entry (CPOE). This trial, however, has given us some insight into the creation, maintenance and use of electronic orders.
- A number of collaborative efforts have been made with the anatomy department in the Schulich School of Medicine and Dentistry. Currently Kevin Armstrong is collaborating with James Turgeon (MSc Candidate) and Dr. Tim Wilson (Assistant Professor) to evaluate a 3D model of the brachial plexus. Testing of this model will be undertaken using kinesiology and physiology students as well as anesthesia, orthopedic, and plastic surgery residents. The goal is to establish user preference for self-directed learning or content provided learning in a 3 dimensional model. Anticipated completion of this project is 2012.

- During this year's meeting of the Canadian Anesthesiologists' Society a number of regional anesthesia physicians from the University of Western Ontario took part in the 2011 meeting workshops.
- At University Hospital, there was a clinical trial of a block-room which was based
 on the St. Joseph's model of a block room. This is a significant and challenging
 endeavour to increase the provision of regional anesthesia and analgesia to
 patients at UH. Dr. Christopher Harle has played a significant role in making
 the clinical initiative a positive one. All major stakeholders including surgery,
 preadmission, OR and PACU nursing, pharmacy and anesthesia came together
 to determine the feasibility of this model. It is expected that this will continue.

Dhir, Shalini

- 17th ASEAN Congress of Anesthesiologists. *Basic Principles of Ultrasound* [Invited Lecture and Workshop Instructor] February 24 28, 2011. Manila, Philippines.
- American Society of Regional Anesthesia and Pain Medicine (ASRA): Annual Spring Pain Meeting and Workshops. [Workshop Instructor]. May 5 7, 2011.
- Burntwood Health Authority. *US Guided Nerve Blocks* [Invited Lecture]. 2010. Manitoba, Canada.
- Ontario Medical Association (OMA); Annual Conference. [Workshop Organizer].
 October 2, 2010. Toronto, Canada.
- Penn State University. *Introduction to Ultrasound and Related Physics* [Visiting Professor and Invited Workshop Instructor]. 2011. Hershey, PA, USA.
- Thammasat University. Recent Advances in Postoperative Pain Management. [Visiting Professor]. March 2011. Thailand.

Ganapathy, Sugantha

- American Society of Anesthesiologists (ASA): Annual Meeting.
 [Workshop Demonstrator]. October 2011. Chicago, IL, USA.
 - 4-hour intense cadaver workshop on ultrasound guided peripheral nerve blocks for chronic pain
 - Ultrasound guided regional anesthesia workshop
- American Society of Regional Anesthesia and Pain Medicine (ASRA):
 Annual Spring Pain Meeting and Workshops. [Workshop Demonstrator and Session Leader]. May 5 7, 2011.
 - Intensive Ultrasound Workshop
 - Lower Extremities Workshop
 - Ultrasound for Neuraxial and Truncal Blocks Workshop
- University of Toronto. [Workshop Demonstrator]. Toronto, ON.
 - Advanced workshop on USGRA. November 2010.
 - Obturator, Lateral femoral cutaneous, ilioinguinal TAPB and Paravertebral blocks. March 2011.

Ambulatory Anesthesia

By Dr. Ian McConachie, Director

In North America approximately 70% of all patients have their surgery on an ambulatory basis. St Joseph's Health Care, London is the main site for ambulatory anesthesia within the city, though surgical cases are performed on an ambulatory basis at all sites. A wealth of learning opportunities are offered in ambulatory anesthesia at St Joseph's Health Care, London – the largest in numbers of cases of all the anesthetic subspecialties. The emphasis is on maximizing quality of care for these patients.

Dr. McConachie is also the chair of the Ambulatory Anesthesia section of the Canadian Anesthesiologists' Society and actively involved in the Canadian Ambulatory Anesthesia Research and Education group (CAARE). As such, Dr. McConachie is the organizer for the Ambulatory section events and lectures for the annual scientific meeting of the CAS.

Dr. McConachie also contributes specific lectures in Ambulatory anesthesia to the formal Residents' lecture program. Teaching is otherwise informal. There are two main research foci within the group. Members of the group, led by Dr. Fuller are involved in research on postoperative monitoring of obstructive sleep apnea patients. Members of the group, led by Dr. Morley-Forster, are involved in research on smoking cessation for ambulatory surgical patients.

Fuller, John

- Southwestern Ontario PACU Nurses Conference. [Invited Lecture]. April 16, 2011.
 - Obstructive Sleep Apnea: Perioperative Management

McConachie, lan

- Canadian Anesthesiologists` Society's Annual Scientific Meeting. June 2010.
 Montreal, QC.
 - Abstract Review Committee. Committee Member
 - Ambulatory Section Program. 2010. Program Organizer
 - Nitrous Oxide who's laughing now? [Presented]
 - Pain is inevitable suffering is optional. How we failed this patient. [presented]
- European Journal of Anesthesiology. Manuscript Reviewer
- Post Anesthesia Care Conference. April 2011. London, ON.
 - Intravenous lidocaine the big freeze. [Presented]
 - Nitrous Oxide who's laughing now? [Presented]
- Physicians' Services Incorporated Foundation. [Grant Reviewer]. 2009 2011.
- Southwestern Ontario Airway Meeting. [Workshop Demonstrator]. 2010.



Anesthesia Assistants Program

By Dr. James Watson, Director

The past year has continued to build on the success of the Anesthesia Care Team. We have continued with the development of this program. Anesthesia Assistants (AA) have been integrated into the work routines of the Department with the cooperation of the entire Department. This has allowed us to reliably provide service for some of the key wait time initiatives such as cataract surgery. In the cataract suite we use a model of care where one consultant supervises two Anesthesia Assistants. Other AAs assist in the block room or monitor patients after major regional blockade or provide special assistance in the operating room for more complex cases. Care of patients outside the OR, such as pediatric imaging and procedures, neuroradiology or electrophysiology labs have all benefited from having consistent, reliable assistance in these challenging environments.

In September 2008, Fanshawe College in London, ON initiated a training program for Anesthesia Assistants. The third class began in September 2011. The Department of Anesthesia and Perioperative Medicine has been involved in the design of this program and has provided a significant amount of classroom and operating room instruction. During the Basic Program, run from September to December, most teaching is provided by Fanshawe College instructors affiliated with the long-established Respiratory Therapy Department. For the Advanced Program, or second semester, which runs from January to April, most of the lectures and workshops are physician directed. Many of the senior anesthesia residents participate in teaching these courses and workshops. Residents and the participating faculty members found this to be a rewarding training experience. Enrolment has begun for next year's class.

The role of Anesthesia Assistants is gaining a national presence and has been recently adopted by the Canadian Anesthesiologists' Society. Currently, we are developing new models of care in areas where the Department has not had the human resources to provide coverage. This includes endoscopy and obstetrics with expanded invasive radiology. We have participated in provincial teams in association with the MOHLTC to further develop and define the roles within the Anesthesia Care Team. Review of the application of the ACT model has demonstrated a cost effective, safe

and accepted model of care. We have received funding from the Ministry of Health that extends the ACT program further. We will continue to explore ways to improve patient safety, efficiency and working conditions for anesthesiologists.

Anesthesia Quality Assurance (Citywide)

By Dr. Ian Herrick, Chair

The Anesthesia Quality Assurance Committee is mandated to:

- assist the Chief and Site Chiefs with monitoring and promoting safe, high quality anesthesia care across the London hospitals,
- provide a forum for the post hoc systematic review of critical incidents and events impacting on anesthesia care,
- support education and research by encouraging the engagement of Department members and trainees in projects to assess and enhance quality care,
- serve as a resource to support quality assurance activities with relevance to the quality or safety of anesthesia care and aligned with the objectives of the departmental Quality Assurance framework.

Citywide in scope, the Quality Assurance Committee has departmental representation from each of the London hospital sites (SJHC, VH and UH). Its core program provides

1) ongoing clinical audit of perioperative indicators and events related to anesthetic care,

2) formal clinical care screening using established 'trigger tool' methodology,

3) a structured review process for perioperative critical events involving anesthetic care.

Quality care occurs at the bedside – the work of the Committee is greatly facilitated by the tradition of exceptional care provided by individual members of the Department.

Highlights of Committee activities for 2010-2011 include:

- continuing favourable trend in the monitored perioperative care indicators over the past 12 months.
- completed chart audit for several perioperative care indicators over selected periods in 2009 and 2010 to assess factors associated with observed improvements in performance. Data analysis is currently in progress.
- completed audit of departmental consultation report on quality, with results and recommendations delivered to Department members and trainees in June 2011.
- completed revisions to the LHSC postanesthetic care unit complication codes with plans for implementation in autumn 2011.
- commenced audit of central line infection rates for lines placed within the operating room with report and recommendations due in September 2011.
- departmental reporting at citywide quality rounds:
 - anesthesiologist's role in adverse event reporting
 - review of departmental QA performance and indicator reporting for 2010
 - medication safety issues in the operating room
 - preview of electronic order development for the APS
 - report and recommendations pertaining to the quality of anesthesia consultation notes.

Cardiac Anesthesia

By Dr. Daniel Bainbridge, Director

The cardiac program continued relatively unchanged in 2011. Again roughly 1,400 cardiac surgical cases were performed at University Hospital. The cardiac anesthesiology group consists of 20 individuals and continues to provide 24/7 coverage of cardiac surgical cases through a first and second call system at University Hospital. Two subspecialty programs were initiated this past year; one new and one a resumption of a program on hold. The Impella program was initiated in 2011 and so far four patients have received Impella left ventricular support devices over the past year. Also in 2011, the percutaneous aortic valve implantation program resumed using the CoreValve system

from Medtronic. The Fellowship Program has two fellows: Kanwar Baloria, from India, and Yasuhisa Okamoto, from Japan. Thursday morning didactic teaching continues with the involvement of the cardiac consultants. The main objectives in the next 12 months are to improve the use of the online cardiac anesthesia database, especially Euroscore as it has now become integrated into the cardiac surgical recovery unit database, and to acquire several new ultrasound machines for use in the cardiac ORs as the current set of 4500 and 5500 HPSonos/Philips machines have become antiquated.

Cheng, Davy

- 6th Biennial Conference on CPB. [Invited Speaker]. August 3-10, 2010. Penang, Malaysia.
 - Cardiac Surgery: Past, Present and Future [Plenary Lecture]
 - Common Postoperative Complications and Management in Cardiac Surgery [Symposium Lecture]
 - Thoracic Endovascular Aortic Stent Repair (TEVAR): Outcomes and Perioperative Management [Symposium Lecture]
- 12th International Congress: Cardiothoracic and Vascular Anesthesia Conference (ICCVA) [Invited Speaker]. September 22 24, 2010. Beijing, China.
 - Cardiac Surgery and Anesthesia: Past, Present and Future in the Western World [Plenary Lecture]
 - Translating Clinical Trials to Clinical Practice [Lecture]
 - World Health Organization Safe Surgery Checklist Guideline [Lecture]
- 17th ASEAN Congress of Anesthesiologists. [Invited Speaker] February 24 28, 2011. Manila, Philippines.
 - Preoperative Assessment of Cardiac Patients for Non-Cardiac Surgery: What's in and what's out? [Plenary Lecture].
 - Pro Con Debate: Monitoring of Cardiac Patients To Swanz or Not to Swanz? [Lecture]
 - Symposium Lecture: Dilemmas in Cardiothoracic Patients: The Beta-Blocker Controversy – should it change our anesthesia practice? [Lecture]

- 20th Congress of the Association of Thoracic and Cardiovascular Surgeons of Asia (ATCSA) [Invited Speaker]. October 28 31, 2010. Beijing, China.
 - Cardiac Care Network of Ontario, Canada [Lecture]
 - Endovascular Aortic Repair (TEVAR) versus Open Surgical Repair Outcomes in Comparative Studies [Lecture]
 - OPCAB Surgery in High-Risk Patients: Evidence of Benefits? [Lecture]
 - Perioperative Management and Recovery in Hybrid Robotic Coronary Revascularization Surgery [Lecture]
- 29th Annual Symposium: Clinical Update in Anesthesiology, Surgery and Perioperative Medicine. *Is there a benefit to OPCAB surgery?* [Lecture]. January 16 - 21, 2011. St Maartin, French West Indies.
- The AFP Innovation Fund Provincial Oversight Committee Showcase. Evidencebased Perioperative Drug Therapy – Getting Evidence into Policy and Practice [Presented, Invited Panelist]. November 18, 2010. Toronto, Canada.
- Canadian Agency for Drugs and Technologies in Health (CADTH) Symposium.

 Panel 8 Workshop: Contextualization of HTA: Is there a 'Science' Micro level in Physician-Patent [Speaker]. April 3, 2011. Vancouver, BC.
- Chinese University of Hong Kong: Departments of Cardiac Surgery and Anesthesia.
 [Visiting Professor]. October 2010. Hong Kong, China.
 - Management of Poor Ventricular Function in Cardiac Surgery [Lecture]
- IARS 2011 Annual Meeting. [Invited Speaker]. May 19 25, 2011. Vancouver, BC.
 - CVS Medication and Anesthestic Management Panel Lecture: "Preoperative Assessment. Management of Cardiac Patients for Non-Cardiac Surgery"
- ISMICS Expert Panel Consensus Conference. [Lectured]. June 2011: Washington, USA.
 - Perioperative Blood Management in Cardiac Surgery: Consensus Statement, 2011
- Saudi Heart Association Annual Meeting. February 18 24, 2011.
 Riyadh, Saudi Arabia.
 - Cardiac Anesthesia and Surgery: Past, Present and Future [Lecture]
 - OPCAB Surgery in High Risk Patients: Evidence of Benefits [Lecture]

Lavi, Ron

• Winter Cardiac Team Meeting. *Renal Implications of Cardiac Surgery* [Presented]. February 2011. Mount Tremblant, QC.

Murkin, John

- New York Society of Anesthesiologists (NYSSA) [Scientific Panel Speaker in PGA/64 Program]. December 13, 2010, New York, NY, USA.
 - Best Practices in Cardiac Anesthesia "Best Neuroprotective Strategies"
- Grand Rounds Maine Line Health System [Visiting Professor]. December 6, 2010. Philadelphia, PA, USA.
 - "Cerebral Oximetry: Monitoring the Brain as an Index Organ" [Lecture]
- SATS 2010, International Meeting [Invited Speaker]. August 26, 2010. Oslo, Norway.
 - NIRS Monitoring of the Brain & Tissue Oxygenation [Lecture]
- SCA 33rd Annual Meeting & Workshops [Invited Speaker]. April 30 May 4, 2011. Savannah, GA, USA.
- International Panel on Monitoring: "NIRS: The Trustworthy Guide Through Deep Hypothermic Circulatory Arrest?"
- The 6th Annual Canadian Winter Cardiac Team Meeting [Course Co-Director] February 18 -20, 2011. Mont Tremblant, QC.
 - Lecture X: "Update Monitoring Brain as the Index Organ" [Lecture]
 - Clinical Case Conference VI: Circulatory Stabilization Preceding Heart Transplant [Presenter]
 - Session I: Aortic Valve Disease [Session Moderator]
 - Session III: Resident/Fellow Abstract Competition [Session Moderator]
- 12th International Congress of Cardiothoracic & Vascular Anesthesia [Symposium Chair and Invited Speaker]. September 23, 2010. Beijing, China
 - Symposium VI: Critical Oxygen Balance [Lecture]
 - Symposium III: Cerebral Monitoring [Lecture]

Key Publications:

- Murkin JM, Adams SJ, Pardy E, Quantz M, McKenzie FN, Guo L. Monitoring brain oxygen saturation during coronary bypass surgery improves outcomes in diabetic patients: a post-hoc analysis. Heart Surg Forum. 2011 Feb 1;14(1):E1-6
- Murkin JM. Cerebral Oximetry: monitoring the brain as an index organ. Anesthesiology. 2011 Jan;114(1):58-59.

Cardiac Surgery Recovery Unit (CSRU)

By Dr. Ron Butler, Director

The Cardiac Surgery Recovery Unit is a 14 bed level 3 critical care unit that specializes in the care of the postoperative cardiac surgery patient. The CSRU is part of the Program in Critical Care. Each year we care for approximately 1,300 patients that undergo Cardiac Surgery including: coronary bypass, valve replacements, heart transplantation, minimally invasive and robotic cardiac surgery. This unit has state of the art equipment to meet the complex needs and to fast track recovery of our cardiac surgical patients. The CSRU is staffed by critical care physicians with backgrounds that include cardiac anesthesiology, critical care medicine, and cardiac surgery. The trainees consist of anesthesia and cardiac surgery residents, cardiology residents, critical care residents, and cardiac anesthesia fellows. An Advanced Practice Nurse also works within the CSRU and provides a key link between the CSRU and Cardiac Surgery ward. The CSRU provides excellent experience in postoperative cardiac surgery care both clinically and academically.

Chronic Pain Program

By Dr. Pat Morley-Forster, Director

CLINICAL CARE

In 2010 - 2011, the outpatient Pain Clinic received 1,600 referrals, and almost 5,000 patient visits, of which 900 were new consults.

We were fortunate to recruit two new physicians to the multidisciplinary Chronic Pain Program, Dr. Collin Clarke, a former UWO anesthesia resident, and Dr. Eldon Loh, a physiatrist, from Alberta. Dr. Clarke spent a fellowship year training in Interventional

Pain Management techniques, especially spinal cord stimulation, at Duke University. Dr. Loh also did postgraduate training in interventional procedures focusing on radiofrequency denervation for facet joints in Edmonton at the University of Alberta. Both start their clinical duties in the summer of 2011.

In spring 2011, we undertook a pilot program offering three consecutive days of four hour ketamine infusions to 12 outpatients with refractory Complex Regional Pain Syndrome. The anesthesia assistants were trained to monitor patients during the procedure, and were supervised by consultants who also covered overnight call to deal with any delayed adverse reactions. The dosage regime proved safe, in that there were no call-backs or serious complications. While relief was profound for 5 - 10 days, it was not long enough, in most cases, to continue to offer this treatment on a regular basis.

EDUCATION

In 2010 - 2011, we employed two excellent chronic pain fellows; one from Singapore, and one from India. Both became skilled at ultrasound and fluoroscopy-guided techniques under the supervision of Dr. Geoff Bellingham. Each did a rotation with Dr. Ramin Safakish, an Adjunct Professor of the Department of Anesthesia and Perioperative Medicine who works at the Chatham Kent Health Alliance, to obtain training in radiofrequency ablation. Dr. Darryl Bin developed an evidence-supported algorithm of Complex Regional Pain Syndrome to assist us in determining who should be referred for consideration of spinal cord stimulator therapy. Dr. Manikandan, in collaboration with Dr. Craig Railton and Dr. Pat Morley-Forster, measured serum ketamine levels in patients applying topical ketamine gel for neuropathic pain syndromes.

Anesthesia residents rotate through the Pain Clinic for one block. We also offer Physiatry residents a three month rotation as part of their training requirement. Pain Management is a popular selective with Physiatry and Family Medicine residents as well, so much so that we are not able to meet all requests.

Interdisciplinary Pain Rounds held the fourth Thursday afternoon each month feature invited speakers with national/international reputations. The announcements are posted on www.londonpain.ca

"Breakfast and Learn" sessions for all Pain Clinic staff are held the fourth Friday morning each month, on clinically relevant topics with the Wortley Village Family Health team also attending.

ONGOING RESEARCH

1. Randomized Controlled Trials

- a. Methadone/Morphine Neuropathic Pain Trial: This is a CIHR funded, RCT to compare the efficacy of oral methadone and morphine in the management of chronic neuropathic pain. This is a multicentre study involving Calgary, Halifax and London with Dr. Mary Lynch as the overall PI in Halifax.
- b. Naloxone/Oxycontin (Targin) for Opioid-induced Constipation: This is an industry study examining the combination of oral Naloxone and controlled-release oxycodone on bowel function.
- c. IV Lidocaine for Neuropathic Pain This is an RCT of intravenous lidocaine to investigate its long term benefits in chronic neuropathic pain. This is a crossover trial comparing IV Lidocaine to IV Benadryl as the active placebo with follow-up over a period of six weeks in each phase of the study.

2. Functional Imaging Pain Studies

- a. CRPS Study Involving Intravenous Lidocaine Patients who respond to an open Lidocaine infusion are randomized to either a second Lidocaine infusion or placebo infusion with functional MRI imaging in each phase of the study to examine the effect of Lidocaine infusions on regional cerebral blood flow.
- b. Fibromyalgia Study This is a study using arterial spin labeling to investigate changes in cerebral blood flow in the limbic system in patients with fibromyalgia relative to age – and sex- matched controls. This study is funded through CIHR in collaboration with Dr. Karen Davis at the University of Toronto.

3. Observational Studies

a. Neuropathic Pain Database (NePDAT) Study – This is a multicentre cohort study to investigate the long-term outcome of management of chronic neuropathic pain using standard pharmacologic guidelines. The study, funded by CFI and Pfizer, involves seven centres across Canada. Subject accrual has been completed with 831 patients being entered with further follow-up over 2011. These patients are being followed for up to two years. Data entry will be completed in December 2011 with statistical analysis in early 2012 and submission for publication later that year.

b. Primary Care Neuropathic Pain Studies – Using electronic medical records,
 a retrospective study of the prevalence of neuropathic pain in primary care is
 being carried out through the Department of Family Medicine at The University
 of Western Ontario. A similar prospective study with outcome data is planned for
 the Department of Family Medicine at McMaster University. Both of these studies
 are funded through a grant from Pfizer.

Morley-Forster, Pat

- Ambulatory Anesthesia Section Annual Meeting. *Accuracy and Usefulness of smokerlyzer device* [Invited Lecturer]. June 2010. Montreal, QC.
- College of Nurses: Post Anesthetic Care Conference. Chronic Pain: A Common and Confusing Perioperative Scenario [Presented]. April 16, 2011. St. Joseph's Health Care, London, London, ON.
- McMaster University Health Sciences, Fourth Annual Interventional Pain Management Conference. Methadone for Chronic Pain [Presented]. August 2010. Hamilton, ON.
- Ottawa Hospital: Department of Anesthesiology. The New Royal College Subspecialty Program Grand Rounds. Ottawa, Canada.
 - Speaker on Pain Medicine [Invited Lecturer] February 2011.
 - Speaker on Pain Medicine [Invited Lecturer] September 2010.
- Purdue Pharma: Learning Seminar for Family Physicians. Practical Perspectives on Pain: Managing Opioid Effects for Optimum Outcomes [Presented]. June 13, 2011.
 Woodstock, ON.
- St. Joseph's Health Care: Perioperative Interdisciplinary Rounds. *Smoking Cessation Counselling in the Preadmission Clinic* [invited lecturer]. April 16, 2011. London, ON.
- TD's Discovery Days: Healthcare Professionals Panel for London Secondary School Students [Invited Speaker and Panellist]. June 13, 2011. London, ON.
- The University Hospitals Coventry and Warwickshire NHS Trust. *Canadian Opioid Use:* Guidelines for Chronic Non-Cancer Pain [Visiting Professor]. July 2010. Coventry, UK.

 University of Toronto: Lawrence S Bloomberg Faculty of Nursing.
 Workshop: To produce a consensus statement on the optimal methods of interprofessional assessment at a conference on moving the pain education agenda forward: Innovative Models. [Workshop Chair]. August 2010. Toronto, ON.

Ower, Katherine

• University of Western Ontario: Victoria Hospital. *Coping with the Chronic Pain Patient*. September 2010. London, ON.

Safakish, Ramin

- Safakish R. Ultrasound guided radiofrequency sympathectomy of stellate ganglion. Oral poster presentation. Fall meeting of the American Society for Regional Anesthesia and Pain Medicine (ASRA) [abstract].
- Family Physician group. 2011: Chalham, ON.
 - Tramadol, an agent to fill the gap for treatment of moderate chronic pain [Presentation].
 - Tapentadol (Nucynta CR) a new agent to treat severe chronic pain
- Department of Anesthesia: Chatham-Kent Health Alliance. 2011: Chatham, ON.
 - Evidence for using Tranexamic acid in non-cardiac surgeries [Presentation]
 - Failed back surgery syndrome, treatment options and Adhesiolysis procedure [Presentation]
- University of Western Ontario Pain Program: Interdisciplinary Pain Rounds. *Chronic Back Pain, The Facet Joint and Radiofrequency* [presentation]. 2010: London, ON.



THE OUTPATIENT PAIN CLINIC RECEIVED 1,600 REFERRALS, AND ALMOST 5,000 PATIENT VISITS, OF WHICH 900 WERE NEW CONSULTS



Evidence Based Perioperative Clinical Outcomes Research Group (EPiCOR)

By Dr. Janet Martin, Director

EPiCOR Members: Davy Cheng, Janet Martin, and Daniel Bainbridge

The Evidence Based Perioperative Clinical Outcomes Research Group (EPiCOR) is a multidisciplinary collaboration between Anesthesia and Perioperative Medicine, Surgery, Pharmacy, Medicine, and Pharmacology whose mandate is to provide comprehensive systematic reviews, meta-analyses, and health technology assessments of new and existing technologies including medical devices and equipment, surgical and other interventional procedures, drugs and diagnostic techniques in order to inform important perioperative clinical and economic questions with the best available evidence.

Our goal is to identify, synthesize, and translate best evidence into decisions for policy and everyday practice, and to collaborate with others in this mission locally, nationally, and internationally.

The EPiCOR Group has completed research in the following areas:

Perioperative Supportive Care

- Patient Controlled versus Nurse Controlled Analgesia
- NSAIDs versus Non-NSAID Multimodal Analgesia
- Cox-2 Selective Perioperative Analgesia
- Amiodarone Perioperatively
- Postoperative Nausea and Vomiting
- Perioperative Gastric Acid Suppression
- Levosimendan for Prevention of Arrhythmia and Death
- Dexmedetomidine for Prolonged ICU Sedation

Blood Conservation

- Antifibrinolytics
- Synthetic Colloids versus Albumin
- IV Irons
- Perioperative Erythropoeitics
- Ultrafiltration
- Miniaturized Circuits
- Cell Saver

Minimally Invasive Surgical Methods

- Off-Pump versus On-Pump Coronary Artery Bypass Surgery
- Endovascular versus Open Vein Harvest for CABG (EVH)
- Video-Assisted Thoracic Surgery (VATS)
- Thoracic Endovascular Aortic Repair versus Conventional Open Repair (TEVAR)
- Minimally invasive versus conventional mitral valve surgery (MI-MVS)
- Transcatheter Aortic Valve Intervention

Innovative Surgical and Imaging Techniques

- Stentless Valves versus Conventional Valves for Aortic Valve Replacement
- Multislice CT, MRI, TEE/TTE Ultrasound, versus Angiography for Aortic Dissection
- Surgical AF Ablation (MAZE and related procedures)

OUR GOAL IS TO IDENTIFY,
SYNTHESIZE, AND TRANSLATE
BEST EVIDENCE INTO
DECISIONS FOR POLICY AND
EVERYDAY PRACTICE

INTERNATIONAL COLLABORATION

In addition, EPiCOR has collaborated with other international groups to perform evidence based systematic reviews and consensus statements. These forums provide a unique opportunity to teach surgeons, anesthesiologists and related healthcare personnel about evidence based decision making, meta-analysis and systematic review. The following areas have been addressed by consensus conferences led by EPiCOR:

- Off-Pump Coronary Artery Bypass Surgery (OPCAB)
- Endovascular Vein Harvest (EVH)
- Video Assisted Thoracic Surgery for Lung Cancer (VATS)
- Transmyocardial Revascularization (TMR)
- Stentless Aortic Valves (SAV)
- Ablation of Atrial Fibrillation (AFL)
- Thoracic Endovascular Aortic Repair (TEVAR)
- Minimally invasive Mitral Valve Repair (MI-MVS)
- Perioperative Colloids (HES, Albumin, Gelatins)
- Blood Management Drugs, Devices, and Procedures



In 2011 with the support of the Medical School, Hospital and Lawson Research, we are establishing a MEDICI Centre (Medical Evidence, Decision Integrity, Clinical Impact) to be the first hospital based evidence based health technology assessment program in

Ontario, and to involve other hospitals and the MOHLTC to build network capacity to answer high priority healthcare questions in a timely, transparent and accountable manner. EBDM and HTA workshops and courses at SSMD and cross faculty within UWO will be established, and network with an international consortium of universities to provide an International MSc (HTA) program. The Network will generate new hypotheses for innovative research in applied decision making and knowledge translation techniques to address key evidence gaps and translation gaps related to the constant tension between available technologies and resources in healthcare.

FACULTY ACADEMIC OUTREACH

EPiCOR research has presented at conferences, research centres and universities locally and internationally. The EPiCOR Group also contributed to teaching opportunities and publications for the purpose of raising awareness of the need for evidence based decision making (EBDM), medical economics and health technology assessment (HTA), and Know4Go.

- 29th Annual Symposium: Clinical Update in Anesthesiology, Surgery and Perioperative Medicine. 2011: St Maartin, French West Indies.
 - Applying HTA to Decision-Making in Ontario: Macro, Meso, Micro Levels [Lecture].
 - Barriers to Adoption of Medical Technologies in Canada [Presented].
- BC Ministry of Health: Health Policy Rounds.
- Bienniel Conference on CPB. Thoracic Endovascular Aortic Stent Repair (TEVAR):
 Outcomes and Perioperative Management [Presented]. 2010: Penang, Malaysia
 - Contextualization of HTA : Is There a "Science" Micro level in physicianpatient [Presented]
 - Contextualization of HTA: Is there a "Science"? Using Know4Go for Contextualization at the Hospital Level [Presented]
 - Does Collatamp Reduce Morbidity and Resource Utilization in Patients Undergoing Cardiac Surgery? A Meta-Analysis of Randomized Trials [Presented].
 - Evidence Based Perioperative Clinical Outcomes Research (EPiCOR) [Presented].
- Health Canada. Health Technology Assessment and Management: A Coordinated Strategy for Canada [Presented]. Ottawa, ON.
- Health Care Reform and Comparative Effectiveness Review Symposium. Know4Go: Using Evidence, Ethics and Economics in Decision Making [Presented]. Clinical Science and Translation Institute, University of Rochester, USA
- IARS 2011 Annual Meeting. *Knowledge Translation: New Evidence Impacting Your Practice in 2011* [Presented]. Vancouver, ON.

- International Council of Cardiothoracic and Vascular Anesthesiologists (ICCVA).
 High Impact HTA: Assessing Evidence, Ethics, Economics in Context within
 Constrained Time Limits using Know4Go [Presented]. September 2010: Beijing, China
- International Ulysses Masters in HTA. HTA and Physician Decision Making for the Course: The Incorporation of Health Technology Assessment into Clinical Decision Making [Lecture]. University of Toronto, Toronto, ON.
 - Is there a benefit to OPCAB surgery? [Presented]
 - ISMICS Consensus Statements in 7 years: How Far We've Come, and How Far We Have Yet To Go? [Presented]
- ISMICS Expert Panel Consensus Conference: Washington, USA.
 - Know4Go: Using Evidence, Ethics, Economics and Everything Else in Decision Making [Lecture].
 - Know4Go: Using Evidence, Ethics, Economics and Everything Else in Decision Making [Presented].
 - Medical Decision Making: Evidence is Essential, but Insufficient [Lecture].
 - Medical Decision Making: Using Evidence, and Dealing with its Imperfections [Lecture].
- Medical Technology Innovation Conference: Richard Ivey School of Business, UWO
- MSc in HTA Clinical Decision Making and HTA course: University of Toronto, Toronto, ON.
 - Multicriteria Decision Analysis for HTA using Know4Go [Presented]
 - Off-Pump versus On-Pump Coronary Artery Bypass Surgery: Do Elderly Patients Benefit the Most? [Presented]
 - OPCAB vs CCAB: Do Elderly Patients Benefit Most? [Presented]
 - Perioperative Blood Management in Cardiac Surgery [Presented]
- Saudi Heart Association Annual Meeting. *OPCAB Surgery in High Risk Patients:* Evidence of Benefits. February 2011. Riyadh, Saudi Arabia
- Society for Cardiovascular Anesthesiologists (SCA) Panel: Georgia, USA.

- The Canadian Agency for Drugs and Technologies in Health (CADTH) Symposium.
 April 2011. Vancouver, BC.
 - Transcatheter Aortic Valve Intervention: A Case Study for Improving Hospital Level Decision Making [Lecture].
 - Using Know4Go to Improve Decision Making Locally and Regionally [Presented].
 - Value for Money for New and Emerging Technologies: How to Measure it using Know4Go [Presented].

Cheng, Davy

- IARS 2011 Annual Meeting. May 19 25, 2011. Vancouver, BC.
 - Refresher Course Lecture: "Knowledge Translation: New Evidence Impacting Your Practice in 2011" [Invited Speaker]
- ISMICS Expert Panel Consensus Conference. June 2011. Washington, USA.
 - Consensus Statement Introduction: Seven ISMICS Consensus Statements in Seven Years: How Far We Have Come, and How Far We Have Yet To Go [Invited Speaker]
- The Richard Ivey School of Business (UWO): The Medical Technology Innovation Conference. *Barriers to Adoption of Medical Technologies in Canada* [Panel Speaker]. June 2011. London, ON.
- SCA Annual Meeting. April 30 May 4, 2011 Savannah, GA, USA.
 - Evidence Based Perioperative Clinical Outcomes Research (EPiCOR):
 Knowledge Translation [Speaker]
 - Does Collatamp Reduce Morbidity and Resource Utilization in Patients
 Undergoing Cardiac Surgery? A Meta-Analysis of Randomized Trials [Poster Presentation]
 - Off-Pump vs. On-Pump Coronary Artery Bypass Surgery: Do Elderly Patients Benefit the Most? [Poster Presentation]
 - PBLD: MICS Is Less Always More? [Speaker]

- The University of Toronto: International Ulysses Masters in HTA. HTA and Physician Decision Making for the Course: The Incorporation of Health Technology Assessment into Clinical Decision Making [Lecture]. May 12, 2011: Toronto, ON.
- The University of Western Ontario (UWO).
 - Department of Anesthesia and Perioperative Medicine: Grand Rounds. EPiCOR-HTA Program: Best Practice in Perioperative Anesthesia and Surgery [Lecture]. March 23. 2011. London, ON.
 - Department of Medical Imaging Retreat. *Anesthesia and Perioperative Medicine: SOS (Secret of Success)* [Speaker]. April 2011. London, ON.

Martin, Janet

- The University of Western Ontario. Collaborative Research Supervisor
 - Schulich School of Medicine and Dentistry, Medical Undergraduates
 - Masters of Science in Epidemiology and Biostatistics
 - Ivey School of Business, MBA Health Sector Program
- Curriculum Development or Program Oversight involvement:
 - Master of Science in Health Technology Assessment
 Coordinating Committee and Program Lecturer
 University of Toronto, University of Montreal, University of Barcelona,
 and Catholic University of Rome
 - Master of Public Health Program Planning Retreat: Schulich School of Medicine and Dentristry, The University of Western Ontario
 - Contextualization in Health Technology Assessment

 Pre-conference Workshop Organizer

 CADTH National Health Technology Assessment Symposium

Health Informatics Program

By Dr. Steven Dain, Director

Health informatics is a discipline combining information science, computer science, and healthcare. It deals with the resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of information in health and biomedicine. It is a multidisciplinary field comprised of computer scientists and engineers, information science, technology, epidemiology, psychology, geneticists and healthcare providers.

The major thrusts of the program are to provide assistance to the acute pain program and regional anesthesia program at University Hospital, to work with International Standards Development Organizations in writing standards for the collection and dissemination of information on a global basis, and to work with the MD Plug and Play Program at the Center for Integration of Medicine and Innovative Technology: A non-profit consortium of Boston's leading teaching hospitals and universities.

Drs. Steven Dain, Rakesh Bhandari, Cindy Carnegie RN, Heather Fisher RN with the assistance of Drs. Kevin Armstrong, Peter Mack, and Miguel Arango have developed Cerner PowerChart based medical record forms in the past few years in cooperation with the Clinical Information Management (IM) group at UH and plan in the future to analyse the data collected prospectively using the electronic medical record. During the last year, we submitted a project to the IM group, to produce reports from the data, that will help with research and Quality Assurance processes.

Dr. Dain in his capacity of Chair of ISO Technical Committee 121, Subcommittee 4 Anesthesia Nomenclature and Semantics is a global leader in Anesthesia Nomenclature and Semantics that will revolutionize Anesthesia Information Management Systems and the communication of data between medical devices. Dr. Dain is also a member of the International Healthcare Terminology Standards Development Organization SNOMED CT, a member of the Canadian Standards Association Healthcare Technology Steering Committee, and the IHE (Integrating the Health Enterprise) Patient Care Devices Ventilator Terminology committee.

Most of the work over the past year in ISO TC 121 SC 4 has been involved in developing a standard nomenclature and semantics for ventilators. As many ventilator manufacturers have been trademarking different modes of ventilation and breath types, there exists a patient safety hazard in units that have more than one make and model of ventilator, as orders need to be specifically written for the specific ventilator used. In parallel with this effort, Dr. Dain has participated with the IHE group and ISO TC 215 Joint Working Group 7 Devices with the goal to write a ISO/IEEE 11073 Health informatics - Standard communication protocol - Ventilators standard so that ventilators can communicate with other devices, such as synchronisation with chest x-ray machines, data for the EMR, quality assurance and research support.

Dain, Steven

- Canadian Standards Association (CSA) Standards Reviewed. 2011
 - CAN/CSA-C22.2 No. 60601-1-1:02 (R2011) Medical Electrical Equipment
 - Part 1-1: General requirements for safety Collateral standard: Safety requirements for medical electrical systems. Collaborator
 - CAN/CSA-C22.2 No. 60601-1-4:02 (R2011) Medical Electrical Equipment
 - Part 1-4: General requirements for safety Collateral standard:
 Programmable electrical medical systems. Collaborator
 - CAN/CSA-C22.2 No. 60601-2-34:02 (R2011) Medical Electrical Equipment
 - Part 2 34: Particular requirements for the safety, including essential performance, of invasive blood pressure monitoring equipment. Collaborator
- Center for Integration of Medicine and Innovative Technologies (CIMIT). Innovation grant: PCA Monitoring Safety Interlock to Decrease Adverse Clinical Events.

 [Grant Reviewer]. 2010.
- University of Toronto: Department of Anesthesia. *Overview of CSA Facility Standards* for Out-of-Hospital Facilities [Invited Lecture]. February 1, 2011: Toronto, ON.

Liver Transplantation

By Dr. Wojciech Dobkowski, Director

The Liver Transplantation Group was established in the Department twenty years ago. Presently, this group includes five cardiac anesthesiologists with subspecialties in liver transplantation: Dr. Achal Dhir, Dr. Wojciech Dobkowski, Dr. Chris Harle, Dr. Fiona Ralley, and Dr. Tony Vannelli.

This year we provided services to 54 liver transplant patients including 12 living-related transplants. The Living Related Liver Transplant Program has existed in our institution for the past twenty-two years. We also provide services for patients undergoing liver resection and biliary tract surgeries.

Our group is also involved in pretransplant assessment and the qualification of all patients before they are placed on the transplantation list.

In 1995, we were the first to establish a Canadian Academic Liver Transplantation Program, with a fellowship in the Department of Anesthesia and Perioperative Medicine.

FELLOWSHIP PROGRAM

Every year since 1995, we have had two fellows who are involved in all the clinical activities of our group. This program includes seminars (every two weeks) that are prepared by the fellows under the supervision of our consultants. These seminars cover all perioperative clinical aspects of liver transplantation from the perspective of anesthesiologists. Fellows also participate in pretransplant assessment for all transplant patients, and they likewise have the opportunity and obligation to be involved in research projects.

This year, Fellows for Liver Transplantation were involved in the following projects:

- 1. Infusion of Ketamine and Lidocaine for pain management after major liver resection.
- 2. Extended donation criteria and orthotopic liver transplant (OLT): An outcome study of the Canadian system.
- 3. Incidence and transesophageal echocardiographic predictors for dynamic LVOTO during OLT a pilot study.
- 4. Liver transplantation in patients with Grade IV encephalopathy: Difference between fulminant hepatitis and acute chronic hepatic failure.

Over the last five years, our Liver Transplantation group has organized a Transplantation symposium for the Canadian Anesthesiologists' Society (CAS) Annual Meetings. In addition, we also developed a transplantation website which we hope will one day be a national forum for all Canadian Transplant Anesthesiologists. Currently, our plans for the future include the organization of the Canadian Transplantation Interest Group, and hopefully, a Transplantation section within the CAS. With regards to future research projects, over the next 1 – 2 years, our group will be researching the continuous inhalation of Milrinon in patients with PH undergoing liver transplantation; and reperfusion and right ventricle hemodynamics during OLT.

THIS YEAR WE PROVIDED
SERVICES TO 54 LIVER
TRANSPLANT PATIENTS
INCLUDING 12 LIVING-RELATED
TRANSPLANTS

Dhir, Achal

- All India Institute of Medical Sciences (AIIMS) [Visiting Professor].
 TEE In Non-Cardiac Surgery. November 2010. New Delhi, India.
- American Cardiologists' Association (ACA); 14th Annual. *Simulation in Anesthesia Training* [Invited Lecture]. 2011: Manila, Philippines.
- Canadian Anesthesiologists' Society; Annual Meeting. June 2011. Toronto, ON.
 - Case Discussion: Transplant Session [Invited Lecture]
 - Transplant Case Discussions I and II [Symposium Organizer]
- Indian Association of Cardiovascular and Thoracic Anesthesiologists (IACTA); Annual Conference. *Antiplatelet Agents and their Status*. 2011: Bangalore, India.
- Ontario Medical Association (OMA); Annual Conference. Anesthesia for Non Transplant Surgery in a Post Transplant Patient [Invited Lecture]. October 2, 2010. Toronto, ON.
- RML Hospital [Visiting Professor]. New Delhi, India.
 - August 2010. TEE in Emergency Cardiac Surgery
 - November 2010. Role of TEE in Mitral Valve Surgery
- RT Annual Day Lectures. Anesthesiology *An Overview* [Invited Lecture]. October 2010.
- Siriraj Hospital, Mahidol University [Visiting Professor]. Simulators in Anesthesia Training. March 2, 2011. Bangkok, Thailand.
- Thammasat University [Visiting Professor]. *Anesthesia for Liver Transplantation*. March 3, 2011. Thailand.
- Thompson General Hospital [Visiting Professor]. October 2010. Thompson, MB.
- Toronto Transesophageal Echocardiogram (TEE) Symposium. *TEE in non-cardiac surgery* [Invited Lecture]. November 7, 2010. Toronto, ON.



CONSOLIDATION OF
CITYWIDE OBSTETRICAL SERVICES
HAS ALLOWED OBSTETRICAL
ANESTHESIOLOGISTS
TO COOPERATIVELY FOCUS
THEIR EFFORTS ON PATIENT CARE,
TEACHING AND RESEARCH

Obstetrical Anesthesia Program

By Dr. Sandra Katsiris, Director

This past year was a very exciting one for the Obstetrical Anesthesia Program at The University of Western Ontario. Construction of the Grace Donnelly Women's and Children's Health Pavilion, at London Health Sciences Centre, Victoria Hospital, was completed. After years of planning and anticipation, the new space was released for occupancy. Over the weekend of June 4 and 5, 2011 all obstetrical and neonatal patients from St. Joseph's Health Care were moved to Victoria Hospital. On Monday, June 6, the consolidated Obstetrical Care Unit (OBCU) officially opened. This new space has 16 large labour/birthing rooms, as well as four cesarean section operating rooms, which are centred around a neonatal resuscitation core. The antenatal ward is now directly attached to the OBCU, and the postpartum ward is also on the same level, making transitions for care much more straightforward. Consolidation of citywide obstetrical services has allowed Obstetrical Anesthesiologists to cooperatively focus their efforts on patient care, teaching and research. This marks the welcome beginning of a new model of Obstetrical Anesthesia Subspecialty work in the city.

The volume of deliveries for the city was approximately 6,000 this past year. Of those, approximately 60% were high-risk. The epidural rate was similar to last year at approximately 74%, and the cesarean section rate was also steady at 24%. Approximately 90% of cesarean sections are done under regional anesthesia.

The core resident rotations through the Obstetrical Unit were fully subscribed again this year. Consolidation of services has allowed us to assign two residents to Obstetrical Anesthesia rotations at one time. In addition to core UWO trainees, there were a number of residents from other institutions that chose to come to London for elective experience

in obstetrical anesthesia. Dr. Indu Singh has been coordinating these rotations.

As in past years, obstetrical anesthesia was a common theme in trainee presentations at regional, national and international meetings.

The Obstetrical Anesthesia Fellowship Program had Dr. Kristine Marmai as a clinical fellow this year, and will welcome Dr. Kamal Kumar and Dr. Patricia Kolesnechenko next year.

Singh, Indu

- 57th Annual Ontario Anesthesia Meeting. October 2, 2010. *Obstetric Anesthesia, Saturday Afternoon Session* [Session Organizer].
- Canadian Anesthesiologists' Society; Annual Meeting. June 2011. Toronto, ON.
 - Advanced Regional Anesthesia for Torso: USG TAP Blocks [Workshop Demonstrator].
 - Regional Anesthesia Monday Morning Poster Discussion [Moderator]
 - Regional Anesthesia Sunday Morning Workshop: *Guided Upper Limb Brachial Plexus Blocks* [Instructor]
- Indian Society of Anesthesia Conference (ISACON). December 29, 2010: India.
 - Use of US in Obstetric Anesthesia [Worksop Chair].
 - USG TAP Blocks [Workshop Demonstrator].
 - What's new in obstetric anesthesia: lessons learned from the 1st decade of the new millennium [Lecture; Invited Speaker].
- Society for Obstetric Anesthesia and Perinatology (SOAP) 43rd Annual Meeting. 2010: Nevada, USA.
 - Resident Session [Moderator].
 - USG TAP Blocks [Workshop Instructor].

Palliative Medicine in the Department of Anesthesia and Perioperative Medicine

By Dr. Valerie Schulz

Palliative Care in the Department of Anesthesia and Perioperative Medicine is becoming integrated in the Comprehensive Pain Management Program. This is a hospitalwide integration of perioperative pain management initiative with the Acute Pain and Chronic Pain Programs. Palliative Care is provided throughout acute care including the Critical Care Units and chronic care as well.

The Palliative Care service is often involved in the Chronically Critically Ill and complex patient population in Critical Care. In order to strengthen continuity of care and communication amongst multiple interdisciplinary team members, this work led to a research project for the Critical Care Board Rounds. This is a case conferencing process of care.

From an education standpoint, Palliative Care providers are involved in undergraduate medical education for both Palliative Care and Population Health.

The medical student's Palliative Care education has been strengthened by a Palliative Care Club and students being trained as hospice volunteers. As well, an application for a Palliative Care Residency Program is also being completed this year.

Schulz, Valerie

- The Influence of Being a Hospice Volunteer on Medical Students Attitudes and Comfort Regarding Death and Dying [Presented].
 - Canadian Hospice Palliative Care Conference. October 30, 2010 Ottawa, ON.
 - The Schulich School of Medicine and Dentistry: Centre for Education Research and Innovation (CERI). October 7, 2011 London, ON.

Pediatric Anesthesia

By Dr. Mohamad Ahmad, Director

The academic year 2010 - 2011 has been the most exciting year for the pediatric anesthesia program in some time.

The foremost event of the year was the transfer of the Neonatal Intensive Care Unit from St. Joseph's Health Care to London Health Sciences Centre on June 5, 2011. The transfer of the infants and the equipment including our specialized neonatal anesthesia equipment went smoothly. We have been caring for approximately one NICU patient a week in the Victoria Hospital OR.

The pediatric anesthesia group has expanded. Dr. Arif Al-Areibi and Dr. Jeffrey McNamara joined the group in 2010 and Dr. Bobbi Jo Morrell and Dr. Vanessa Fantillo joined in 2011 bringing the number of anesthesiologists in the group to nine. Dr. Fantillo graduated from our residency program in 2010 but followed that with six months of extra training in our Pediatric ICU and six months of pediatric anesthesia at the Hospital for Sick Children in Toronto. A number of other residents have expressed an interest in pediatric anesthesia fellowships.

We had two pediatric anesthesiologists as visiting speakers over the past year. Dr. Joseph Tobias, Chair of Pediatric Anesthesia at Ohio State University, Columbus, Ohio gave a talk on pediatric regional anesthesia in September 2010. In November 2010, Dr. Robert Walker of Royal Manchester Children's Hospital, Manchester, UK was the keynote speaker at the UWO Annual Airway Workshop. He discussed difficult airways in children.

Our out-of-OR work has increased over the past year. We have added a second halfday of pediatric endoscopy and demand for our services in interventional radiology continues to increase. Over the coming year, we will double the amount of time for MRI under general anesthesia in an attempt to reduce that wait list. We also plan to relaunch the minor procedure room using an interesting and highly integrated model where patient preparation, anesthesia, procedure and recovery all take place in the Pediatric Medical Day Unit. This should improve the perioperative experience of the children and their families.

This year we have implemented some changes in practice. The most important was giving the pediatric anesthesia group responsibility for all infants under two months of age. This allows us to concentrate and develop our neonatal anesthesia skills by ensuring each consultant in the group is exposed to enough volume of cases. This has been generally well received by our colleagues – we thank them for their support and encouragement. It had also been a recommendation of the most recent external review.

In line with the Department's clinical services realignment initiative, the pediatric anesthesia group will take responsibility for all out-of-OR sedation and the pediatric preadmit clinic. This is a great opportunity for our centre as it allows us to develop more pediatric subspecialty expertise and should help us more readily recruit fellowship trained pediatric anesthesiologists and surgeons. It will also improve our teaching and research prospects.

IT IS HOPED THAT BY
EDUCATING THE JUNIOR
RESIDENTS AT THE BEGINNING
OF THEIR TRAINING THAT
THEY WILL DEVELOP GOOD
BLOOD ORDERING PRACTICES
DURING THEIR RESIDENCY
AND CONTINUE WITH THESE
AS CONSULTANTS

Perioperative Blood Conservation Program

By Dr. Fiona Ralley, Director

The Perioperative Blood Conservation Program (PBCP) has now become an integral part of the preoperative assessment of surgical patients undergoing orthopedic, cardiac, and vascular procedures where blood loss may lead to the possibility of requiring a blood transfusion. Previous expansion into other surgical specialties, especially that of patients undergoing colon/rectal resections, has had to be curtailed since mid-2010 due to the increased workload from ONTraC and lack of additional clerical staff. Despite these drawbacks the program assessed over 2,000 patients during the past twelve months of which 64% were arthroplasty patients and 22% were patients scheduled for either CABG or other cardiac surgical procedures. Interventions included the use of preoperative erythropoietin (12%) with either oral or intravenous iron, intraoperative acute normovolemic hemodilution with component splitting, use of cell salvage and the use of intraoperative tranexamic acid in both orthopedic and cardiac surgical procedures. Unfortunately, since 2010 referrals from surgical specialties largeted by ONTraC fell by over 80%. It is hoped during the subsequent year that some of the work management issues can be resolved so that these patients can once again be referred to the program in the future. However, individual requests from any institution or surgical service continue to be reviewed on a patient by patient basis.

The new form developed by the PBCP committee for patients who are refusing blood products, is designed to assist physicians with their discussions on the alternatives available to these patients; this form has been well received. It is hoped that this will remove much of the confusion that often arises when dealing with these patients, especially in the operating room. In addition it is hoped that it will also remind and educate personnel talking to patients who are refusing blood products as to the available alternatives. A description of each modality is included on the reverse of the form. This form replaced the old form late summer of 2010 and is now available in all patient care areas.

Surgical transfusion data reports on overall transfusion rate, transfusion trigger and discharge hemoglobin, preoperative hemoglobin and transfusion rates and highest transfusion rate procedure for each surgical service for timeframes were distributed to surgeons starting in November 2009. Since then reports have been sent quarterly to cardiac and orthopedic services as requested and biannually to all other surgical specialties. In addition, at the request of the Medical Advisory Committee, PBCP will report as a quality indicator – the incidence of 1 and 2 unit red blood cell transfusions within each surgical division with the outcome measure goal of increased 1 unit red blood cell transfusions and decreased 2 unit red blood cell transfusions. Information from this new indicator will be added to the transfusion reports sent out to the surgical services once available.

As in previous years members of the PBCP have been very active academically. The use of intraoperative tranexamic acid for arthroplasty procedures continues to draw requests for our protocol, both provincially, nationally and recently internationally especially after the publication of the paper describing our results in the Journal Clinical Orthopedics and Related Research. Other presentations have included lectures at the conference of the American Academy of Orthopedic Surgeons, CBS/ORBCoN/ONTraC 3rd Annual Spring Symposium and the Southwest Regional ORBCoN meeting. Dr. Ralley has been nominated to sit on the board of directors for the Society for the Advancement of Blood Management (SABM) in which many members of the PBCP are also very active. As in past years, residents from both anesthesia and orthopedic specialties have been encouraged to participate in the ongoing research of the program.

Education into the appropriate ordering of all blood products continues as one of the main foci of the program. Lectures on blood products and their appropriate management have now been routinely incorporated into both the anesthesia and first year surgical resident curriculum lecture series. It is hoped that by educating the junior residents at the beginning of their training, they will develop good blood ordering practices during their residency and continue with these as consultants.

Ralley, Fiona

- Can-AM Clinical Anesthesia Conference, 2011. *Update on Perioperative Transfusion* [Presented]. May 7, 2011. Niagara Falls, ON.
- Canadian Society for Transfusion Medicine (CSTM) Annual Meeting. Review of Transexamic Use in Elective Surgery [Presented]. May 13, 2011. Toronto, ON.
- 12th International Congress of Cardiothoracic and Vascular Anesthesia. *Transfusion Target in Cardiac and Vascular Surgery* [Presented]. September 24, 2010. Beijing, China.
- Joint Anesthesia and Surgical Rounds at the Chinese-Japanese Friendship Hospital *Perioperative Blood Conservation* [lecture]. September 22, 2010. Beijing, China.
- North Indian Medical and Dental Association of Canada (NIMDAC) Annual Continuing Medical Education Conference. What's New in Anticoagulation and its Reversal? [Presented]. October 2010. Niagara on the Lake, ON.

STEP UP UNIT HAS SERVED SUCCESSFULLY... PROVIDING SUPPORT TO HIGHER ACUITY AND ACUTELY CRITICALLY ILL PATIENTS

Step Up Unit, St. Joseph's Health Care, London

By Dr. John Fuller, Director

The Step Up Unit Capability at SJHC was initiated at Milestone 1, in April 2005. The Unit has served successfully since then, providing support to higher acuity and acutely critically ill patients. The Step Up Unit is staffed by members of the Division of Critical Care, PACU nurses and RRT's, and Clinical Assistant Physicians from a variety of backgrounds.

At Milestone 2, a variety of higher acuity services transferred from SJHC to LHSC. These included Obstetrics and major Gynecology. This resulted in a reduction of the number of patients likely to require critical care Step Up Unit support. However, there remain pressures to provide surgical therapy at SJHC for some patients with significant comorbid disease. After a careful review it was decided to maintain the Step Up Unit Capability at SJHC until at least June 2012. There will continue to be a physician led Medical Emergency Response Team. Several models to maintain MERT and provide the services currently covered by the Step Up Unit are under consideration. The challenge is to achieve optimal balance between reduced cost and excellent care for high acuity patients who require surgical treatment at SJHC.

Thoracic and Vascular Anesthesia

By Dr. George Nicolaou, Director and Fellowship Coordinator

The academic Thoracic and Vascular Anesthesia Program continues to thrive and grow at an exponential rate in the Department of Anesthesia and Perioperative Medicine at The University of Western Ontario. Located at Victoria Hospital, it is an extremely busy program covering all types of complex elective and emergency cases, with the exception of lung transplantation.

Vascular surgery operates five times a week and thoracic surgery four times a week. We have monthly morbidity, mortality and multidisciplinary rounds with our surgical colleagues to assure quality control and to keep up on current events.

The majority of vascular and thoracic patients coming through our institution have multiple coexisting diseases including severe cardiorespiratory compromise. These patients have an extensive preoperative evaluation by anesthesia and/or internal medicine, cardiology and respirology. We have developed a multidisciplinary perioperative high risk clinic for optimization and follow up of these patients. The Thoracic and Vascular Surgical Programs have their own postoperative step down monitored units with invasive monitoring capabilities.

THORACIC SURGERY

The robotic and video assisted thoracic surgical programs (VATS) are well developed at our institution and currently account for 80% of cases, the remainder being open thoracotomies or investigative procedures. On average, per year, we perform 300 major pulmonary resections and 80 esophagectomies. We have the largest experience with esophagectomies and VATS procedures in Canada. To enhance our clinical experience and improve our teaching program we have developed an advanced VATS surgery and anesthesia workshop using a pig model. Here, consultants can enhance their skills in fiberoptic bronchoscopy and management of one lung ventilation. The pediatric thoracic anesthesia program is evolving with the recruitment of a pediatric thoracic surgeon. Pediatric thoracic procedures include investigative, video assisted and open procedures. Alongside this, is the adult and pediatric regional anesthesia and acute pain program, allowing for excellent perioperative pain management.



THE ACADEMIC THORACIC
AND VASCULAR ANESTHESIA
PROGRAM CONTINUES TO
THRIVE AND GROW AT AN
EXPONENTIAL RATE IN THE
DEPARTMENT OF ANESTHESIA
AND PERIOPERATIVE MEDICINE

VASCULAR SURGERY

The Vascular Division of Surgery at Victoria Hospital has and continues to be a pioneer in endovascular stenting of abdominal and thoracic aneurysms and claims one of the largest series in North America. Ruptured abdominal and thoracic aneurysms that have favorable anatomy are repaired by the endovascular route at our institution. The thoraco-abdominal aneurysm program is well developed and these aneurysms are now generally repaired using endovascular branched stents. The thoraco-abdominal aneurysms that cannot be repaired by using endovascular stents are repaired utilizing partial left heart bypass. Recently, we have started repairing aortic arch aneurysms via the endovascular route. We use rapid ventricular pacing to optimize surgical conditions before stent deployment. In an average year, we perform 150 open abdominal aneurysm repairs, 35 endovascular thoracic, 150 endovascular abdominal and 10 endovascular thoraco-abdominal aneurysm repairs.

TRANSESOPHAGEAL ECHOCARDIOGRAPHY (TEE)

Our Transesophageal Program is well developed, with formal teaching and multidisciplinary weekly rounds. TEE is specifically available for management of thoracic aneurysm stenting and for adjunctive management of the vascular patient with associated cardiac disease. While not every anesthetist involved in vascular anesthesia is experienced in TEE, there is usually one anesthetist experienced in TEE available for guidance.

RESEARCH PROJECTS IN PROGRESS

- Role of continuous positive airway pressure and positive end expiratory pressure on PaO₂ during one-lung ventilation utilizing lung protective ventilation strategies
- Treatment modalities for spinal cord protection
- Use of near-infrared spectroscopy for monitoring spinal cord perfusion in endovascular repair of thoracic aortic aneurysms
- Biochemical markers of spinal cord ischemia in patients undergoing thoracic aortic endovascular repair

RESIDENTS TRAINING

Our Residency Program includes two four-week blocks of subspecialty training in vascular and thoracic anesthesia. Educational objectives are clearly outlined and monitored through daily assessments. Reading material is provided and residents are encouraged to partake in clinical research. At the beginning and the end of their rotations, the residents have an MCQ examination to assess improvement during their rotation. An oral examination is also administered at the end of the rotation.

FELLOWSHIP PROGRAM

Our Fellowship Program is well established with ongoing clinical research opportunities in collaboration with our surgical colleagues. The program is one year in duration. Each week, the fellow will work two days independently in the operating room, one day in vascular and one day in thoracic with a consultant. The fifth day is for academic and research projects. The fellows are encouraged to attend x-ray rounds, thoracic/vascular rounds, fiberoptic bronchoscopy clinics and transesophageal rounds. Reading material is provided and fellows are encouraged to go to another centre for two weeks to broaden their experience. The Fellowship Program is extremely flexible, and is designed to accommodate the individual fellow's needs.

SIMULATION

We have begun integrating our subspecialty training (fellows and residents) with simulation modules. This has met with great success with trainees and instructors alike. This environment allows for better preparation in this clinically diverse population. We anticipate the continued development in this frontier of enhanced learning.

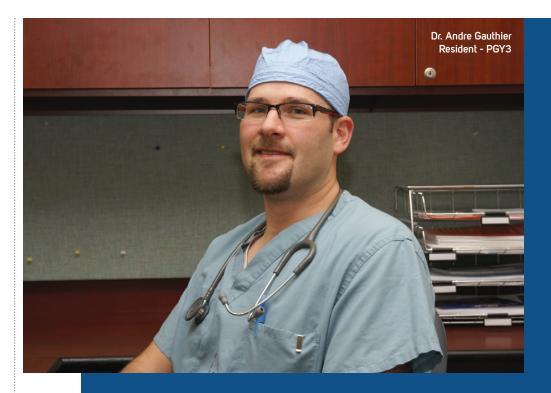
SUMMARY

Overall, the Thoracic and Vascular Program at Victoria Hospital is a very busy program with an incredible variety of interesting and complex cases. It is constantly evolving to keep up with medical and technological advances, to ensure that patients receive the optimal perioperative care currently available. The program offers excellent opportunities for fellows to become proficient in adult and pediatric thoracic/vascular

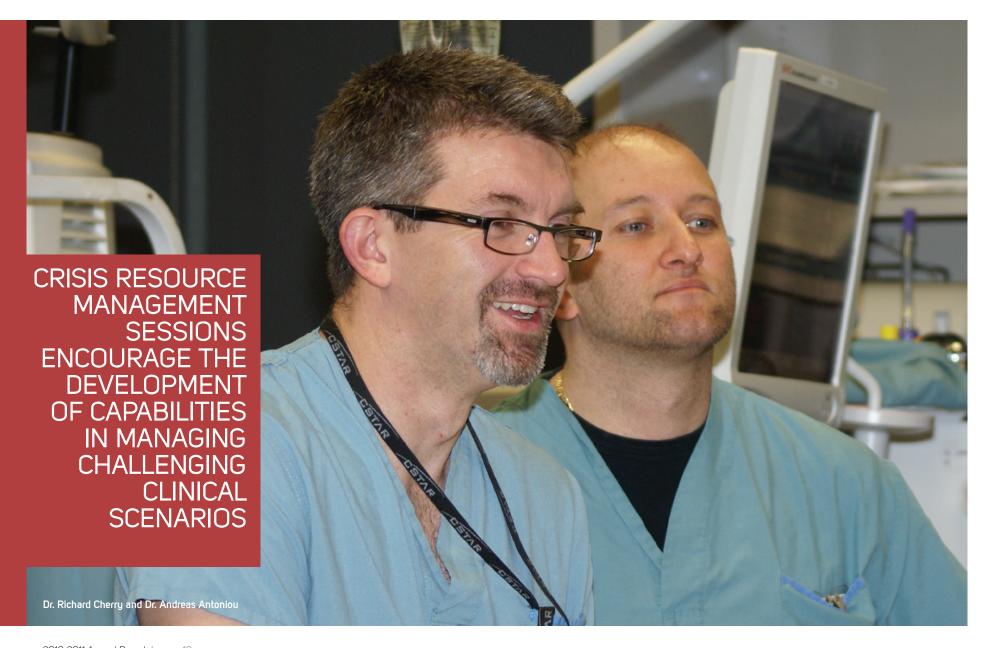
anesthesia and transesophageal echocardiography, both in a clinical and research setting. It is designed to meet the individual's needs, along with the best exposure to the available clinical caseload.

Nicolaou, George

- 12th International Congress of Cardiothoracic and Vascular Anesthesia. *TEVAR and Aortic Root Reconstruction* [Invited Lecturer]. September 23, 2010. Beijing, China.
- Southwestern Ontario Anesthesia Meeting: Airway Workshop. Techniques of Emergency Cricothyroidectomy in Pigs [Instructor and Demonstrator]. November 20, 2010. London, ON.
- CSTAR Advanced Vascular and Thoracic Surgery (VATS) Update. June 9, 2010. London, ON.
 - FOB and Lung Separation Techniques in Pigs for VATS
 [Demonstrator]
 - Management of One Lung Ventilation in Anesthetized Pigs undergoing VATS [Demonstrator and Speaker]



WE WILL CONTINUE TO EXPLORE WAYS TO IMPROVE PATIENT SAFETY, EFFICIENCY AND WORKING CONDITIONS FOR ANESTHESIOLOGISTS



EDUCATION PROGRAMS

Anesthesia and Critical Care Teaching Through Simulation (ACCTTS)

By Dr. Richard Cherry, Director

ACCTTS July 1, 2010 - June 30, 2011

Medical Director: Dr. Richard Cherry
Education Director: Dr. Lois Champion
Research Director: Dr. Ron Butler
Instructors: Dr. Brian Church, Dr. Jeff Granton
Fellows: Dr. Andreas Antoniou, Dr. Ida Bruni



During the 2010 - 2011 academic year, ACCTTS (Anesthesia and Critical Care Teaching Through Simulation) took significant steps toward maturing as a robust academic program. Highlight areas of the year past are characterized by sustaining and enhancing current simulation programs, developing and deploying new simulation programs, a successful fellowship year and enhanced research productivity.

SUSTAINING AND ENHANCING CURRENT SIMULATION PROGRAMS

ACCTTS continues to direct significant resources towards the professional development of postgraduate trainees in anesthesia and critical care. Anesthesia residents attend simulation based Crisis Resource Management sessions quarterly and all critical care junior residents attend while on rotation in the intensive care unit. These sessions emphasize purposeful, guided, reflective debriefing sessions and encourage development of capabilities in managing challenging clinical scenarios. We continue to develop new broadly scoped scenarios on a yearly basis. Currently we are delivering and debriefing approximately 300 simulation encounters per year for a broad variety of participants.

DEVELOPING AND DEPLOYING NEW SIMULATION PROGRAMS

A number of new programs were developed this year. Two are highlighted here. ACCTTS has significantly expanded training programs to undergraduates in the last year. A pilot 'Anesthesia Bootcamp' for medical students was successfully introduced to the two week clerkship rotation. This was widely recognized by participants as an outstanding addition to the clerkship. This day long, interactive curriculum covers the basics of anesthesia practice and intends to equip clerks sufficiently to 'hit the ground' running when they come to the operating room proper.

Disseminating knowledge is an integral part of scholarship. In keeping its academic mandate, ACCTTS was privileged to provide its first 'Train the Trainer' course in January 2011. With a focus on Debriefing in Simulation, we hosted a multidisciplinary group composed of pediatricians, neonatologists, respiratory therapists, nurses and administrators and introduced them to the fundamentals of simulation debriefing.

All of the programs have benefitted from the recent move into the simulation space at the Kelman Centre.

A SUCCESSFUL FELLOWSHIP YEAR

Dr. Andreas Antoniou and Dr. Ida Bruni participated as simulation fellows during the last year. We are grateful for their education driven enthusiasm and dedication to quality simulation instruction. We are also exceptionally pleased that both will be remaining with us on staff and contributing further to the simulation program. Furthermore, we are pleased to announce our first international simulation fellow, Dr. Rodrigo Rubio will be joining us from Mexico City in July 2011.

HIGHLIGHT AREAS OF
THE YEAR PAST ARE
CHARACTERIZED BY
SUSTAINING AND ENHANCING
CURRENT SIMULATION
PROGRAMS, DEVELOPING
AND DEPLOYING NEW
SIMULATION PROGRAMS, A
SUCCESSFUL FELLOWSHIP
YEAR AND ENHANCED
RESEARCH PRODUCTIVITY

ENHANCED RESEARCH PRODUCTIVITY

In the last year, ACCTTS research productivity grew substantially. Currently, there are six active research projects underway within our group. Several of the projects have coinvestigators across subspecialties such as Obstetrical Anesthesia and even across faculties such as The Ivey Business School.

Amongst other venues, in the last year, ACCTTS members have been invited speakers to ACUDA, The Northern Ontario School of Medicine, LHSC Patient Safety Conference, and for the Canadian military. Our research has been presented at local symposia hosted by the Centre for Education Research and Innovation (CERI).

FUTURE PLANS

Programmatically, during the coming year we will be transitioning the clerkship bootcamp experience from a pilot to a regularly scheduled course. Additional courses are being developed to engage the anesthesia fellows and critical care senior residents. Enhanced web presence and e-learning initiatives will be pursued. Improving infrastructure through capital acquisitions will also be an area of focus. Completion of current research projects, publication and our first presentations at national or international meetings are goals for the next few years.

Cherry, Richard

- Association of Canadian University Departments of Anesthesia (ACUDA) [Invited Speaker]. June 2011. Montreal, QC.
- Centre for Education Research and Innovation (CERI): Symposia. Three Symposiums on Health Education Research and Innovation [Instructor].
 March 23, 2011; June 1 - 3, 2011. London, ON.
- ORF Industry. CSTAR Presentation [Invited Speaker]. June 30, 2011. London, ON.

Church, Brian

- Canadian Forces Base: Physician Assistant Course. 2008 Present: Borden, ON.
 - Advanced Airway Trauma Management [Invited Lecture]
 - Trauma Training [Invited Lecture]
- Canadian Military and Veteran Research Forum. November 16, 2010.
 - Minimizing perioperative fluid overload by using hypertonic saline [Copresented]
 - Utilization Profile of the Trauma ICU Role 3 Hospital in Kandahar [Copresented]
- The University of Western Ontario: Cardiac Team Meeting. *Challenges to Providing Anesthesia Care in a Conflict Zone* [Presented]. 2011. London, ON.

Continuing Medical Education

By Ian Herrick, Director

In addition to active faculty involvement in the provision of CME through lectures and presentations at local, national and international meetings and conferences, the UWO Department of Anesthesia and Perioperative Medicine hosts a wide range of accredited learning events in relation to its continuing professional education program. A compilation of citywide CME events and regional/national/international conferences and clinical workshops hosted/organized by the Department follows.

Citywide CME events for Consultants, Fellows, Residents and Southwestern Ontario Anesthesiologists:

Departmental Citywide Grand Rounds: "Anemia and Red-Cell Transfusion"

For: Department of Anesthesia and Perioperative Medicine and Division of Orthopaedic Surgery

Presenter: Dr. Keyvan Karkouti, Scientist, Division of Clinical Investigation and Human Physiology, Toronto General Research Institute September 29, 2010

Departmental Citywide Grand Rounds – 2nd Annual World Anaesthesia Day Lecture: "The Pursuit of Excellence in Anesthesiology"

Presenter: Dr. Ronald D. Miller

Professor and Past Chairman of Anesthesia and Perioperative Care
Professor of Cellular and Molecular Pharmacology, UCSF

University of California, San Francisco (UCSF)

Past Editor-in-Chief, Anesthesia and Analgesia

Editor of *Miller's Anesthesia* (2 volumes) – the leading textbook of anesthesia within the current literature.

October 13, 2010

Perioperative Multidisciplinary Grand Rounds: "That better be your last Cigarette – Smoking Cessation Counselling in the Preadmission Clinic"

Presenters: **Dr. Morley-Forster**, Department of Anesthesia and Perioperative Medicine, Mr. Ozzie Buhrmann, Pharmacy, and Ms. Kristina Nadolska, Preadmission Clinic

London Health Sciences Centre and St. Joseph's Health Care, London October 20, 2010

Departmental Citywide Grand Rounds: "Adverse Management Systems and the Anesthesiologist"

Presenters: Dr. Craig Railton, Department of Anesthesia and Perioperative Medicine, Ms. Silvie Crawford, Associate Vice President, Patient Centred Care, Ms. Mary Anne Davies, Patient Safety Specialist, Quality and Performance London Health Sciences Centre and St. Joseph's Health Care, London November 10, 2010

2010 Southwestern Ontario Anesthesia Meeting – "Airway Workshop"

The London Health Sciences – University Hospital, CSTAR Jointly Organized By: Drs. I. Iglesias, C. Harle, J. Granton,

D. Bainbridge, T. Turkstra

Department of Anesthesia and Perioperative Medicine, London Health Sciences Centre November 13, 2010

The 2010 Aitken Lecture – "Perioperative Stroke in General Surgery: Who knew it was so common"

Presenter: Dr. Adrian Gelb, Professor and Vice Chair, Anesthesia and Perioperative Care, University of California, San Francisco, CA, USA. November 23, 2010



Departmental Citywide Grand Rounds – The 2010 Aitken Memorial Lecture in Neuroanesthesia – "Caveat Emptor – Some Pitfalls in Extrapolating Research Results in Clinical Practice"

Presenter: Dr. Adrian Gelb, Professor and Vice Chair, Anesthesia and Perioperative Care, University of California, San Francisco, CA, USA. November 24, 2010

Departmental Citywide Grand Rounds: "Quality Assurance Committee Update" Subtopics:

- Quality of Care How Have we Been Doing?
- Updating the Anesthetic Record An Opportunity to Have a Say!
- Missing Medications An Update.

Presenters: Drs. Craen, Gros, Herrick, Watson

Department of Anesthesia and Perioperative Medicine London Health Sciences Centre and St. Joseph's Health Care, London December 15, 2010

Perioperative Multidisciplinary Grand Rounds: "Infection Safety and Personal Attire Policy: Evidence of Best Practice"

Presenter: Dr. Michael John, Medical Director, Infection Control, London Health Sciences Centre January 18, 2011

Departmental Citywide Grand Rounds: Clinical Informatics –

"Why don't we have an Anesthesia Information Management System?"

Presenters: **Dr. Steven Dain**, Department of Anesthesia and Perioperative Medicine, Ms. Sandy Jansen, Integrated Director, Clinical Informatics
London Health Sciences Centre and St. Joseph's Health Care, London
February 23, 2011

1st Latin American Course on Perioperative Echocardiography and Ultrasound

Jointly Sponsored By: The Department of Anesthesia and Perioperative Medicine, The University of Western Ontario, Schulich School of Medicine and Dentristry and The Colombian Society of Anaesthesia, Colombian Society of Cardiology and the Inter-American Society of Echocardiography.

Course Director: Dr. Ivan Iglesias

Bogota, Colombia May 11 - 14, 2010

Departmental Citywide Grand Rounds: "Evidence-based Perioperative Clinical Outcomes Research (EPiCOR and Know4Go): Getting Evidence into Policy and Practice"

Department of Anesthesia and Perioperative Medicine and Division of Orthopaedic Surgery

Presenters: **Dr. Davy Cheng**, Chair/Chief, Department of Anesthesia and Perioperative Medicine, **Dr. Janet Martin**, Department of Anesthesia and Perioperative Medicine

London Health Sciences Centre and St. Joseph's Health Care, London March 23, 2011

Departmental Citywide Grand Rounds: "Quality Assurance Committee Update" Subtopics:

- Results and Recommendations from a Citywide Anesthesia Consultation Progress
- Progress related to electronic ordering for the APS

Presenters: Drs. Armstrong, Ashworth, Bellingham and Herrick

Department of Anesthesia and Perioperative Medicine

London Health Sciences Centre and St. Joseph's Health Care, London June 22, 2011

The Winter Cardiac Team Meeting 2011

Jointly Sponsored By: The Department of Anesthesia and Perioperative Medicine, The University of Western Ontario, Schulich School of Medicine and Dentistry and The Montreal Heart Institute, University of Montreal.

Course Directors: **Dr. John M. Murkin**, Department of Anesthesia and Perioperative Medicine and Dr. Bob Kiaii, Department of Surgery, Division of Cardiac Surgery Scientific Committee: **Drs. D Bainbridge**, **D Cheng**, **S Dain**, A Denault,

W Dobkowski, I Iglesias, B Kiaii, Mr. A Cleland

Organizing Committee: S Adams and M Portokalis

Mont Tremblant, QC February 18 - 20, 2011







CHANGES TO THE STRUCTURE OF THE CLINICAL SERVICES IN LONDON HAVE STRENGTHENED OUR ABILITY TO OFFER QUALITY FOUCATION

Departmental Citywide Grand Rounds: "Simulation in Anesthesia: The Current State of our Art and Science"

Presenter: Dr. Richard Cherry

Department of Anesthesia and Perioperative Medicine London Health Sciences Centre and St. Joseph's Health Care, London April 13, 2011

Perioperative Multidisciplinary Grand Rounds:

"The Party Line (Canadian Style) on Central Lines"

Presenter: Dr. Claudio Martin, Chair/Chief, Division of Critical Care Medicine London Health Sciences Centre and St. Joseph's Health Care, London May 18, 2011

Anatomy Workshop 2010-2011 – Ultrasound Guided Regional Blocks

Organizer: Dr. Su Ganapathy

Full-day monthly workshop held for Residents, Fellows and Staff in the anatomy lab, where US guided regional blocks are performed using cadaver dissected specimens and cross sections; teach scanning on volunteers; facilitate a pretest and a posttest at the beginning and end of the day.

Postgraduate Education Program

Bu Dr. Jeff Granton, Director

The past academic year has been another successful one for the Anesthesia Residency Training at the Schulich School of Medicine and Dentistry. Our program in 2010 - 2011 included forty four residents in the Royal College of Physicians and Surgeons program and one resident in the Family Medicine/Anesthesia Enhanced Skills Program. We are also very proud to continue the training of Physician Assistants from the Canadian Forces.

The clinical services at London Health Sciences Centre and St. Joseph's Health Care span the spectrum of primary to tertiary surgical and medical care. This gives our anesthesia trainees the opportunity to participate in a wide array of operative and nonoperative patient care encounters that are required to become a well rounded anesthesiologist. Specialty rotations offered to residents include:

experience in these areas. Rounds specifically dedicated to obstetrical and pediatric

- Acute Pain Management
- Airway Anesthesia
- Cardiac Anesthesia and Postoperative Care
- Chronic Pain Management

anesthesia are now regularly scheduled.

- Critical Care
- Neuroanesthesia
- Obstetrical Anesthesia

- Palliative Medicine
- Pediatric Anesthesia
- Perioperative Medicine
- Regional Anesthesia
- Thoracic Anesthesia
- Transplant Medicine

• Vascular Anesthesia Changes to the structure of the clinical services in London have strengthened our ability to offer quality education. In particular, the consolidation of obstetrics and all pediatric services to Victoria Hospital has improved our capacity to offer focused teaching and

Simulation and training in Crisis Resource Management continues to be a strength for the Anesthesia Training Program at Schulich. Residents routinely undertake full days of simulation based training, allowing them to get exposure to situations and themes that, once practiced in the simulator, will allow them to better approach these challenges in a clinical selting. In the end this will enhance their education and patient safety.

Research and having residents learn how to perform and evaluate research is increasing in its importance, both at the Schulich School of Medicine and Dentistry and also nationally. This past year was another successful year for our residents in research.

With Thanks

A special thanks to all the members of the Anesthesia PGE Committee (noted below) for their dedication to the improving the training of our Anesthesia Residents. An extra special thank you to Linda Szabo for her tireless work as the program's administrator.

- Jeff Granton Program Director
- Davy Cheng Chair of Department of Anesthesia and Perioperative Medicine
- Sandra Katsiris Associate Program Director
- Rosemary Craen Site Coordinator, University Hospital
- Paidrig Armstrong Site Coordinator, St. Joseph's Health Care, London
- Rooney Gverzdys Site Coordinator, Victoria Hospital
- Indu Singh Resident Research Coordinator
- Richard Cherry Simulation and Information Technology Director
- Mark Soderman Community (St. Thomas) and SWOMEN
- Ed Roberts Community (Windsor) and SWOMEN
- Kevin McKeown Chief Resident
- Ryan Smith Resident Representative
- Jennifer Landry Resident Representative
- Linda Szabo Administrator

Resident Research

By Dr. Indu Singh, Director

The residents were active in research and many presented their research at local, national, and international meetings during the year. Six residents presented at the annual McMaster UWO Anesthesia resident research day which was hosted this year by McMaster's Dept. of Anesthesia. First prize was awarded to UWO's Dr. Ryan Smith for his presentation: Peripheral Tissue Oxygenation Saturation Monitoring and the Vascular Occlusion Test in Cardiac Surgery: A Pilot Study.

Resident presentation at annual Cardiac Team Meeting

• Dr. Ryan Smith PGY4, Peripheral Tissue Oxygenation Saturation Monitoring and the Vascular Occlusion Test in Cardiac Surgery: A Pilot Study. Won 2nd prize.

Resident presentations at Midwest Anesthesia Residents Conference

- Dr. Joanna Dion, PGY3, Anaesthetic Management of latrogenic Tracheal Rupture. Won 1st prize.
- Dr. Thomas Quach, PGY4, Anesthetic Management of a Parturient with EDS III Associated with POTS: A Case Report and Literature Review. Won 2nd prize.
- Dr. Kevin McKeown, PGY4, A Case Report of Incarcerated Diaphragmatic Hernia and Tamponade, Won 2nd prize, Published.
- Dr. Lindsay Taam, PGY2 Anesthetic Management of Takayasu's Arteritis in Pregnancy: A Case Report and Literature Review.

Resident presentations at annual Society of Obstetric Anesthesia Perinatology meeting

- Dr. Thomas Quach, PGY4, Anesthetic Management of a Parturient with EDS III Associated with POTS: A Case Report and Literature Review. Presented at Best Case Series forum.
- Dr. Kevin McKeown, PGY4, An Unusual case of Interscapular Pain during epidural Top Up for Cesarean Delivery. Published.
- Dr. Peter Kuszewski, PGY3, The use of the glidescope video laryngoscope (GVL) as a rescue device in a parturient having Cesarean delivery: A Case Report and Literature Review

Resident presentations at McMaster- Western Resident Research Day

- Dr. Ryan Smith, PGY4, Peripheral Tissue Oxygenation Saturation Monitoring and the Vascular Occlusion Test in Cardiac Surgery: A Pilot Study. Won 1st prize.
- Dr. Lindsay Taam, PGY2, Anesthetic Management of Takayasu's Arteritis in Pregnancy: A Case Report and Literature Review.
- Dr. Rebecca Ashcroft, PGY4, Understanding the Effects of Perioperative Renin-Angiotensin System Blockade Under Anesthesia.
- Dr. Joanna Dion, PGY3, Anaesthetic Management of latrogenic Tracheal Rupture.
- Dr. Thomas Quach, PGY4, Anesthetic Management of a Parturient with EDS III Associated with POTS: A Case Report and Literature Review.
- Dr. Kevin McKeown, PGY4, A Case Report of Incarcerated Diaphragmatic Hernia and Tamponade. Published.

Resident presentations at annual Canadian Anesthesiologists' Society meeting

- Dr. Jon Borger, PGY5, Intraoperative stability of patients with carcinoid syndrome treated with octreotide.
- Dr. Joanna Dion, PGY3, A Case of Anaesthetic Management of latrogenic Tracheal Rupture.

STUDENTS ARE VERY
GENEROUS WITH THEIR
COMMENTS REGARDING
TEACHING IN REGARDS TO
BOTH HANDS ON SKILLS
AND CLINICAL AND BASIC
SCIENCES CONCEPTS

Undergraduate Education

By Dr. Ivan Iglesias, Director

Citywide Undergraduate Education (UGE) organization was strengthened with the recent appointment of Dr. Peter Mack as University Hospital's UGE Coordinator for the Department. Our group of coordinators is now complete with Dr. Michele Gros in charge of Victoria Hospital and Dr. Pravin Batohi for St. Joseph's Health Care.

Once again, we organized the Introduction to Airway Management Workshop for the new clerks. Ten Residents helped make the Workshop a great success. The Anesthesia Simulation for Third Year students has kept going strong, and feedback from the students is very positive. We must thank and congratulate Drs. Cherry, Bruni and Antoniou for their dedication to this program. Our residents also were present during the Career Night session for 1st year students, and comments were very good and well received.

Our Faculty throughout the city must be thanked and congratulated for their ongoing participation on teaching the Clerks in the operating room; students are very generous with their comments regarding teaching in regards to both hands on skills and clinical and basic sciences concepts.

Windsor Anesthesia Teaching Program

By Dr. Alexander Briskin, Director

Windsor clerks are equally distributed between two hospitals: Hotel Dieu Grace Hospital (HDGH) and Windsor Region (WR). Each of the hospitals has a unique flavour. At HDGH students are exposed to thoracic, vascular, neurosurgical and trauma programs as well as a high volume cataract clinic. At the WR site they can see OB/GYN and pediatric surgery cases that are not represented at the HDGH site. The Windsor program emphasizes hands-on experience while teaching a curriculum similar to the London sites. Having only one to two learners for ten ORs at a time gives us a unique opportunity to teach practical anesthesia skills. Further, many HDGH staff have

international training and work experience, thereby exposing students to a variety of styles and techniques. A high surgical volume makes this experience even more attractive. In a two week core rotation it is not unusual for our students to perform twenty to thirty intubations and more than one hundred peripheral IVs. Students with a special interest in Anesthesia and Surgery are allowed to practice central and arterial lines and spinal punctures under close staff supervision. We have state of the art video bronchoscopes, glidescopes and ultrasound machines to facilitate teaching these procedures. Overall the breadth of experience, the variety of surgical and anesthesia procedures and the depth of practical exposure make the Windsor Anesthesia teaching program a unique and valuable component of medical student and resident education.

Briskin, Alexander

- University of Windsor. Windsor, ON.
 - Department of Internal Medicine: Critical Care Division. Excited Delirium [Presented].
 - Essex Country Regional Trauma Conference. Pain Management in trauma patients: Drama in Trauma [presented].



THE BREADTH OF
EXPERIENCE, THE VARIETY
OF SURGICAL AND
ANESTHESIA PROCEDURES
AND THE DEPTH OF
PRACTICAL EXPOSURE
MAKE US UNIQUE

FACULTY AWARDS AND RECOGNITIONS

TEACHER OF THE YEAR AWARDS

Fellow Teacher of the Year.

Department of Anesthesia and

Perioperative Medicine (UWO); Schulich

School of Medicine and Dentistry

2009 - 2010: ACHAL DHIR 2010 - 2011: RICHARD CHERRY

Postgraduate Teacher of the Year.

Department of Anesthesia and

Perioperative Medicine (UWO); Schulich

School of Medicine and Dentistry

2009 – 2010: ARIF AL-AREBI 2010 – 2011: ARIF AL-AREBI

Undergraduate Teacher of the Year.

Department of Anesthesia and

Perioperative Medicine (UWO); Schulich

School of Medicine and Dentistry

2009 – 2010: GEOFF BELLINGHAM 2010 – 2011: PRAVIN BATOHI

BAINBRIDGE, DANIEL

Dr. Daniel Baindbridge received the CAS/GE Healthcare Canada Research Award in Perioperative Imaging.

Sponsored by GE Healthcare Canada, this award is for projects in the field of perioperative imaging related to anesthesia and/or critical care. Dr. Bainbridge received this research award for his randomized trial: Virtual reality with ultrasound guidance versus ultrasound guidance alone for central line insertion.

BRISKIN, ALEXANDER

Best Teacher in Anesthesia Award (2011).

Nominated by the Schulich Windsor Clerks. Windsor, ON.

CHENG, DAVY

Dr. Davy Cheng was elected President of the Association of Canadian University Departments of Anesthesiology (ACUDA).

ACUDA serves to "affiliate in a single organization representatives of all Canadian University Departments of Anesthesiology". Representatives then seek "to develop and promote undergraduate education, postgraduate education, and continuing professional development by Canadian University Departments of Anesthesiology; to promote the development of research and scientific progress in Anesthesiology; and to promote exemplary patient care and advise responsible bodies on matters concerning the standards of anesthetic practice".

DOBKOWSKI, WOJCIECH

Dr. Wojciech Dobkowski was awarded the CAS
Gold Medal

"The Gold Medal is the highest award of the Canadian Anesthesiologists' Society. It is a personal award consisting of an inscribed gold medal given in recognition of excellence in matters related to anesthesia". The recipient of this award is nominated on the merit of their "significant contributions to anesthesia in Canada through teaching, research, professional practice, or related administration and professional leadership".

www.cas.ca/English/Winners-Honour-Awards

KATSIRIS, SANDRA

Dr. Sandra Katsiris was named as the new Chief Examiner

The Royal College of Physicians and Surgeons has named Dr. Sandra Katsiris as their new Chief Examiner for the Anesthesia specialty. Dr. Katsiris will assume this role in September of 2011.

JONES, PHILIP

The Department would like to recognize and congratulate Dr. Philip Jones for his completion of a Masters in Clinical Trials from the London School of Hygiene and Tropical Medicine, of the University of London, London, England. Dr. Jones graduated with distinction, receiving the University's "150th Anniversary Achievement

Award", which takes in to account the final marks from all of the program courses, is awarded to the top student in the program.

Congratulations Dr. Jones, on this momentous academic achievement.

RALLEY, FIONA

Dr. Fiona Ralley was nominated to the Board of Directors for the Society for the Advancement of Blood Management (SABM). She began her new role with SABM in September of 2010, and continues to present.

WATSON, JAMES

Dr. James Watson is the recipient of the Professional Staff Organization (PSO) Award for St. Joseph's Health Care

The PSO awards are meant to recognize the performance of an individual who "enables exemplary patient care, teaching and research through leadership, collaboration and/or innovation" – Anesthesia Care Team at SJHC. www.londonhospitals.ca/departments/medical_affairs/pso/recong/receipients.php



CONGRATULATIONS TO ALL OF OUR WONDERFUL STAFF



FACULTY CONTRIBUTIONS AND ACADEMIC OUTREACH

Al-Arebi, Arif

 Post Anesthesia Care Conference – directed towards the Recovery Room and OR Nurses.
 April 2011. London, ON. Speaker

Arango, Miguel

- Colombian Neuroanesthesia Committee. 2006 - Present *Committee Member*
- Faculty of 1000 Medicine: Critical Care and Emergency Medicine. Editorial Board Member
- Latin American Brain Injury Consortium. 2006 - Present Committee Member
- Latin American Neuroanesthesia Committee. 2006 - Present *Committee Member*

Armstrong, Kevin

• Acuity STAR Faculty Advisory Board.

December 2009 - Present. Member and Advisor

Badner, Neal

- Canadian Anesthesiologists' Society: Research Advisory Committee. 2006 - Present Chair and Committee Member
- Canadian Anesthesia Research Foundation.
 2006 Present Board Member

Bainbridge, Daniel

- Cardiac Surgery Recovery Unit [CSRU] Steering Committee. 2003 Present. Committee Member
- Transcatheter HV Steering Committee.

 August 2009 Present Committee Member

Batohi, Pravin

• Professional Staff Organization (St. Joseph's Health Care, London): 2010 - Present. *Vice President*

Butler, Ron

- London Health Sciences Centre (LHSC)
- Joint Professional Staff HR Committee. Member
- LHSC Hospital Board. 2009 2011: Director
- Medical Advisory Committee. 2008 2011: Member
- Medical Advisory Committee: Executive Committee. 2009 - 2011: *Member*
- Professional Staff Organization. 2010 2011: President
- Professional Staff Organization: Executive Committee. 2008 - 2011: *Member*
- Residency Training Committee: Critical Care. *Member*
- The University of Western Ontario
- Critical Care Western: Executive Committee. *Member*

- Department of Medicine Diagnostic and Therapeutic Rounds, 2009 - Present *Rounds Coordinator*
- Undergraduate Education Curriculum and Assessment Committees, 2009 - Present Committee Member
- London Health Sciences [LHSC], London, ON.
- Antimicrobial Committee. 2000 Present Committee Member
- Pharmacy and Therapeutics Committee.
 2009 Present Committee Member

Cheng, Davy

- Asian Society of Cardiothoracic Anesthesiology (ASCA). 2010 - Present. Invited Board Member
- Association of Canadian University Departments of Anesthesia (ACUDA). 2011 - Present. President
 Management Committee. 2009 - 2011. Chair
- Canadian Anesthesiologists' Society (CAS): Board of Directors. 2011 Present. Board Member
- Canadian Network for Environmental Scanning in Health (CNESH). 2011 Present. *Member*
- Canadian Perianesthesia Clinical Trials Network (PACT): Steering Committee. 2010 - Present.
 Committee Member

- External Safety and Efficacy and Monitoring Committee (ESEMC) of the POISE-2 Trial.
 2010 - Present, Member
- International Anesthesia Research Society (IARS)
- Board of Trustees Executive Committee. 2011 - Present. *Secretary*
- Scientific Program Committee.
 - 2009 2011. CoChair
 - 2011 Present. International Advisor
- International Society for Minimally Invasive Cardiac Surgery (ISMICS)
- Steering Committee and Expert Consensus Panel: "Blood Conservation in Cardiac Surgery" 2011. Co-Chair
- Steering Committee and Expert Consensus Panel:
 "Minimally Invasive Mitral Valve Surgery" 2010.
 Co-Chair
- London Health Sciences Centre (LHSC). London, ON
- Predictive Care Steering Committee. 2010 - Present. Committee Member
- Talent Management Strategy Steering Committee. 2010 - Present, Committee Member
- Ministry of Health and Long Term Care (MOHLTC):
 Ontario Blood Advisory Committee (OBAC).
 2010 Present. Vice Chair
- St. Joseph's Health Care, London. London, ON
- Medical Advisory Committee. 2011 Present.

 Committee Member
- Talent Management Strategy Steering Committee. 2010 - Present. *Committee Member*

- Schulich School of Medicine and Dentistry, The University of Western Ontario
- Dean's Awards Committee. 2010 Present.

 Committee Member
- Knowledge Translation and Health Policy Steering Committee 2011 - Present. *Committee Member*

Church, Brian

• Search and Rescue Canada: Medical Protocol Review Board: 2007 - Present. *Board Member*

Craen, Rosemary

- London Health Sciences Centre (LHSC): Patient Safety Committee. *Committee Member*
- The University of Western Ontario, Schulich School of Medicine and Dentistry, Medicine Admissions
 Committee. Committee Member
- Making a Mark: Neuroanesthesia what you need to know [Invited Speaker]. February 10 - 13, 2011.
 Toronto, ON.

Dain, Steven

- American Association for Medical Instrumentation. 2011. Manuscript Reviewer
- Bluezone Technology: Medical Advisory Committee.
 2002 Present. Medical Advisor

- Canadian Anesthesiologists' Society (CAS)
- Patient Safety Committee. 2006 Present Committee Member
- Standards of Care Committee. 1994 Present Appointed Member
- Standards of Practice Committee. 2004 Present. Committee Member
- Canadian Journal of Anesthesia 2009 Present.
 Manuscript Reviewer
- Canadian Patient Safety Institute (CSPI): Health System Innovation Advisory Committee.
 2006 - Present Committee Member
- Canadian Standards Association (CSA)
- Committee Z264.3-98 on User-Applied Labels in Anesthesia and Critical Care. 1997 - Present. *Chair*
- Strategic Steering Committee on Healthcare Technology. 2006 - Present. *Committee Member*
- Technical Subcommittee Z251.1 on Respiratory Technology. 2007 - Present. *Chair*
- Technical Subcommittee Z251.2 on Anesthesia Equipment. 2007 - Present. *Chair*
- College of Physicians and Surgeons of Ontario (CPSO). 2010 Present.
- Peer Assessment Program.

 Anesthesia Peer Assessor
- Out of Hospital Premises Inspection Program (OHPIP). *Peer Assessor*
- Healthcare Information and Management Systems Society. 2009 - Present. *Member*

- International Health Terminology Standards
 Development Organization: Anesthesia Special
 Interest Group (SIG). 2010 Present. Member
- IEEE/ IHE (Intergrating Health Enterprise): Rosetta Terminology Mapping (RTM) Ventilator Task Group. 2008 - Present. *Member*
- London Health Sciences Centre (LHSC)
- Patient Identification Committee. 2007 Present. Committee Member
- Biomedical Engineering Wireless Technology Taskforce. 2003 - Present. *Member*
- Infusion Devices Committee. 2000 Present.

 Committee Member
- Policy Review Task Force for the Citywide Use of Cellular Phones and Other Wireless Technologies.
 2003 - Present. Committee Member
- Organization for International Standardization: International Electrotechnical Commission.
- ISO Technical Committee 121: Subcommittee 4
 "Anesthesia Terminology". 2008 Present. Chair
- Joint Working Group: Anesthesia Workstations. 2001 - Present. *Canadian Expert*
- Joint Working Group: Critical Care Ventilators. 1996 - Present. *Canadian Expert*
- Technical Committee 121
 - Anesthesia Equipment Group. 1992 - Present. *Delegate*
 - Subcommittee 3. 2000 Present. *Member*

- Standards Council of Canada: Canadian Advisory Committee for the International Organization for Standardization (ISO) Technical Committees.
- 121 Subcommittee: Anesthesia Workstations. 2004 - Present *Chair*
- 121 Subcommittee: Breathing Machines. 2001 - Present *Chair*

Dhir, Shalani

- Anesthesia and Analgesia 2011
 Manuscript Reviewer
- British Journal of Anaesthesia. 2011.
 Manuscript Reviewer
- Canadian Journal of Anesthesia. 2011. Manuscript Reviewer
- Canadian Medical Association Journal. 2011.
 Manuscript Reviewer
- Canadian Anesthesiologists Society: Regional Anesthesia Section. 2010 - Present. Chair
- European Journal of Anaesthesia. 2011.
 Manuscript Reviewer
- Journal of Clinical Anesthesia. 2011. Manuscript Reviewer
- Pediatric Anesthesia. 2011. Manuscript Reviewer
- University of Western Ontario: Medicine Admissions Committee. 2011. *Interviewer*

Fuller, John

- Canadian Ambulatory Anesthesia Research and Education (CAARE) Group: 2009 - Present.
 Committee Member
- Canadian Journal of Anesthesia.
 Manuscript Reviewer
- London Health Sciences Centre
- Critical Care Trauma Centre (CCTC), Victoria Hospital, LHSC: 2009 - Present. London, ON.
 - CCTC Consultants Group. Chair
- Pain Management Committee.

 Committee Member
- Data Safety Monitoring Committee. 2009 Present. Committee Member
- St. Joseph's Health Care (SJHC): 2009 Present. London, ON.
- SJHC Emergency Response Committee.

 Committee Member
- SJHC Perioperative Committee.

 Committee Member
- The University of Western Ontario, Schulich School of Medicine and Dentistry
- Postgraduate Medical Education Program. 2010.

 Associate Dean
- The University of Western Ontario
- UWO Faculty Development Workshop: Teaching in a Clinical Setting. September 22, 2010. *Speaker*

Ganapathy, Sugantha

- Anesthesia and Analgesia. 2010.
 Manuscript Reviewer
- Canadian Journal of Anesthesia (CJA). 2010.
 Manuscript Reviewer
- Pain Medicine. 2010. Manuscript Reviewer

Granton, Jeff

- Canadian Critical Care Society.

 Education Director and Board Member
- College of Physicians and Surgeons of Ontario.
 2011: On-site Assessor for Adult Critical Care and Anesthesia
- Quality Improvement for MSICU/CSRU.

 Physician Director
- Cardiac Surgical Recovery Unit (CSRU).

 Education Coordinator
- London Health Sciences Centre
- Transfusion Committee. Committee Member
- Central Line Infection Committee. 2011:

 Committee Member
- Royal College of Physicians and Surgeons of Canada
- Critical Care Speciality Committee.

 Committee Member
- Anesthesia Speciality Committee.

 Committee Member
- The University of Western Ontario
- 2nd Year Medicine Course: Health Care Systems.
 2011: Course Chair
- Schulich School Medicine and Dentistry Appeals Committee. 2011: *Member*

- Schulich School of Medicine and Dentistry PGE Committee. *Committee Member*
- Critical Care Western Residency Training Committee. Committee Member

Herrick, lan

- Association of the Canadian Academic Departments of Anesthesia (ACUDA): Continuing Education and Professional Development Committee. 2008 -Present. Committee Member
- Journal of Neurosurgical Anesthesiology: Editorial Board. 1999 - Present. *Clinical Reports Editor*
- Office of the Chief Coroner of Ontario: Patient Safety Review Committee. 2007 - Present.
 Committee Member
- London Health Sciences Centre (LHSC)
- Citywide Credentials Committee. 2008 Present. Committee Member
- Joint Professional Staff Human Resources
 Committee, in association with St. Joseph's
 Health Care (SJHC) and the University of Western
 Ontario. 2010 Present. Committee Member
- Orderset Program: Steering Committee. 2009 Present. Committee Member
- The University of Western Ontario
- Schulich School of Medicine and Dentistry:
 Advisory Committee for Continuing Medical
 Education (ACCME). 2008 Present.
 Committee Member

Jones, Philip

- Anesthesia and Analgesia. 2011.
 Manuscript Reviewer
- British Journal of Anaesthesia. 2011.
 Manuscript Reviewer
- British Medical Journal. 2011. Manuscript Reviewer
- Canadian Anesthesiologists' Society (CAS)
- CAS Annual Research Awards. 2011. Grant Reviewer
- Ethics Committee. Committee Member
- Research Committee. Committee Member
- Canadian Journal of Anesthesia. 2011.
 Manuscript Reviewer
- Making a Mark. Faculty Member
 - Steering Committee. Committee Member
- Perioperative Anesthesia Clinical Trials (PACT) Group. *Member*
- Drug and Therapeutics Committee

 Committee Member
- Journal of Cardiothoracic and Vascular Anesthesia. 2011. *Manuscript Reviewer*
- Journal of Clinical Anesthesia. 2011.
 Manuscript Reviewer
- Lippincott Williams and Wilkins. 2011.
 Manuscript Reviewer
- Physician Services Incorporated Foundation (PSI Foundation). 2011. Grant Reviewer
- Yonsei Medical Journal. 2011. Manuscript Reviewer

- 52nd Annual McGill Anesthesia Update: Ambulatory Anesthesia. Is there a role for sugammadex? [Invited Lecturer]. May 2011. McGill University, Montreal, QC.
- Southwestern Ontario Anesthesia Meeting.
 Airway Issues Literature during 2010 [Lecture].
 November 2010.

Katsiris, Sandra

- London Health Sciences Centre (LHSC)
- Joint Perinatal Leadership Council: 1999 - Present. Council Member
- LHSC Women's Care Quality Improvement Committee: 2005 - Present. Committee Member
- Maternal and Perinatal Death Review Committee:
 2007 Present. Committee Member
- OB Neonatal Quality Review Committee: 2009 - Present. *Committee Member*
- Royal College of Physicians and Surgeons of Canada
- English Examination Board in Anesthesiology.

 Chair
- Examination Committee in Anesthesiology. *Co-Chair*

McConachie, lan

- Canadian Ambulatory Anesthesia Research and Education (CAARE) Group: 2009 - Present.
 Committee Member
- Canadian Anesthesiologists` Society, Ambulatory Section. *Chair*

- London Health Sciences and SJHC Joint Medical Advisory Committee. 2010 - Present.
 Committee Member
- St. Joseph's Health Care (SJHC). London, ON.
- SJHC Board. Board Member
- SJHC Care Committee. Committee Member
- SJHC Professional Staff Organization.

 Vice President

Martin, Janet

- The International Evidence Based Health Care Conference (www.ebhc.org). *Chair and Organizer*
- The Canadian Agency for Drugs and Technologies in Health (CADTH). *Vice Chair*

Morley-Forster, Pat

- Academic Pain Clinics Directors of Canada (APDOC): 2004 - 2010. Founder and Chair
- Association of Directors of University Affiliated Pain Clinics of Canada. 2004 - 2010. Chair
- Canadian Institutes of Health Research (CIHR):

 Popular Health Grants: 2011. Grant Reviewer
- Canadian Journal of Anesthesia: Editorial Board: 2009 Present. *Editor*
- Canadian Pain Society
- Executive Board, 2006 2010. Executive Member
- Neuropathic Pain Special Interest Group.2005 Present. Invited Member
- Lawson Health Research Institute (LHRI): 1994 - present. *Affiliate Investigator*

- National Institute of Academic Anesthesia: British Oxygen Chair Research Grant. 2011. *Grant Reviewer*
- National Opioid Use Guidelines Group (NOUGG):
 2008 2010. Invited Member
- Ontario Medical Association (OMA)
- Executive Council. 2008 2010. Elected Member
- Section on Chronic Pain: 2008 2010.

 Flected Executive Member
- Ontario Medical Association (OMA)/Ministry of Health and Long-Term Care (MOHLTC)
- Working Group in Chronic Pain. Invited Member
 - The mandate of this committee is to create a blueprint for chronic pain services in Ontario, covering primary care, secondary community centres, and tertiary multidisciplinary clinics.
- The Royal College of Physicians and Surgeons of Canada.
- Specialty Committee: Working Group in Pain Medicine. 2010 - 2011. *Chair*
- Task Force for the Royal College Accreditation of Pain Medicine as a Subspecialty. 2006 - Present. Chair
- St. Joseph's Health Care, London
- Ambulatory Medicine Shared Leadership Council. 2006 - Present. *Council Member*
- Multidisciplinary Pain Clinic. 2001 Present. London, ON. *Medical Director*
- Pain Clinics Advisory Committee. 2002 Present. Committee Member

Murkin, John

- Blood Conservation using Antifibrinolytics in a Randomized Trial (BART): Steering Committee.
 2008 - Present Executive Committee Member
- The Heart Surgery Forum periodical. 2009 Present Editorial Board Member
- McMaster Health Research Institute: Coronary Steering Committee. 2008 - Present Committee Member
- National Heart, Lung and Blood Institute: Protocol Review Committee. 2008 - Present.
 Committee Member
- Seminars in Cardiovascular and Thoracic Anesthesia [periodical]. 2009 Present. *Editorial Board Member*

Nicolaou, George

• LHSC Citywide Perioperative Executive Committee. 2011 - Present. *Vice Chairman*

Ower, Katherine

 Royal College of Physicians' and Surgeons of Ontario: 2010 - Present. Medical Inspector

Railton, Craig

- Department of Medicine, UWO: Clinical Pharmacology Resident Training Committee.
 2009 - Present Committee Member
- London Health Sciences Centre: Victoria Hospital Operating Room Adverse Events Reporting Committee.
 2009 - Present. Committee Member

Ralley, Fiona

- Advisory Board for the Pathogen Inactivation Study Advisory Group (McMaster University): October 2010 - Present. Member
- Journal of Cardiothoracic and Vascular Anesthesia; Editorial Board: 1997 - Present. *Editor*
- London Health Sciences Centre
- Citywide Blood Transfusion Committee: 2006 Present. *Chair*
- Ministry of Health and Long Term Care (MOHLTC);
 Blood Programs Coordinating Office:
 2008 Present
- MOHLTC EPO Working Group. Committee Member
- MOHLTC Provincial Contingency Planning Working Group. *Committee Member*

Schulz, Valerie

- Canadian Palliative Medicine Conference: Advanced Palliative. June 2010. St. John's, NL. Conference Organizer
- Canadian Society of Palliative Care Physicians. 2010. *Board Member*
- London Health Sciences Centre (LHSC).
- Committee on Humanistic Care in a Critical Care Trauma Centre. 2010: Committee Member
- Critical Care Program Committee. 2010: Palliative Care Representative
- Delirium Working Group in Critical Care. 2010: Working Group Member
- Ethics Education Committee. 2010: Physician Representative and Committee Member

- Long-term Mechanical Ventilation Distributed Care Project. 2010: *Contributor*
- Palliative Care Accreditation Committee. 2010: Committee Member
- Sepsis Working Group. 2010: Committee Member
- University Hospital ICU Committee. 2010: Committee Member
- London Middlesex End-of-Life Service Delivery Committee. 2010: Palliative Care Representative
- Royal College of Physicians and Surgeons of Canada
- Advisory Committee on Palliative Medicine. 2010. Committee Member
- Palliative Care Committee and Joint CSPCP Advisory Committee Working Group. 2010.
 Committee Member
- Palliative Medicine Subspecialty. 2010. Curriculum Developer
- Schulich School of Medicine and Dentistry.
- Centre for Education Research and Innovation (CERI). CERI Researcher
- Masters in Public Health Retreat: Symposium Committee. October 2010. Committee Member

Sharpe, Michael

- London Health Sciences Centre: University Hospital, London, ON
- Critical Care Joint Council. 2000 Present Council Member
- ICU Research Committee. 2009 Present Research Associate
- Respiratory Therapy Program. 2000 Present Medical Director
- Surgery Planning Committee. 2009 Present Committee Member

Singh, Indu

- Association of Canadian University Departments of Anesthesiology (ACUDA): Research Committee.
 2005 - Present. Committee Member
- The University of Western Ontario (UWO): Schulich Research Training Program (SRTP) for Medical Students. 2008 - Present. Clinical Member

Sischek, Bill

LHSC and SJHC Citywide Credentials Committee.
 2009 - Present. Chair

Taneja, Ravi

 Canadian Anesthesia Fellowship Steering Committee. 2009. Committee Member

Turkstra, Tim

- Anesthesia and Analgesia.
 Manuscript Reviewer
- BMC Emergency Medicine. Manuscript Reviewer
- Canadian Journal of Anesthesia. *Manuscript Reviewer*
- Journal of Clinical Anesthesia. Manuscript Reviewer
- Journal of NeuroAnesthesia. Manuscript Reviewer
- The University of Western Ontario, Schulich School of Medicine and Dentistry
- National Curriculum Committee. Member
- Schulich School of Medicine and Dentistry
- Patient Centred Care and Integration: 2010 - Present *Facilitator*
- Southwestern Ontario Anesthesia Airway Conference: 2005 - Present. Instructor and Course Organizer

Watson, James

- Canadian Anesthesiologists' Society: Board of Directors. 2011 Present. *Ontario Representative*
- Ontario Medical Association: Section of Anesthesiology. *Chair*
- The Royal College of Physicians and Surgeons of Ontario. *Peer Assessor*

Continued Faculty Academic Outreach The CAS Annual Meeting, 2011

The Canadian Anesthesiologists' Society Annual Meeting. June 24 - 28, 2011; Toronto, ON.

FACULTY PRESENTATIONS

Track: Ambulatory

Colonoscopy: Working Where the Sun Don't Shine Presented by: Dr. Chris Harle

Track: Ambulatory; Perioperative

Oh Sweet Mystery of Life: Diabetes Management in Ambulatory Patients

Presented by: Dr. Ian McConachie

Track: Chronic Pain Management
Frontiers in Pain Education: The New RCPSC
Subspecialty, and the American Pain
Directors of Canada
Presented by: Dr. Pat Morley-Forster

Track: Neuroanesthesia

Neuroemergencies in the Recovery Room

Presented by: Dr. Tim Turkstra

Presented by: Dr. Achal Dhir and Dr. Chris Harle

Track: Perioperative

Coagulations and Hemodynamic Problems

Associated with End-Stage Liver Disease

Track: Regional and Acute Pain

Opioid Tolerance and Pain

Presented by: Dr. Geoff Bellingham

Ultrasound-guided Regional Anesthesia –
Basic – Lower Limb [Workshop]
Instructed by: Dr. Kevin Armstrong and
Dr. Jonathan Brookes (Clinical Fellow)

Ultrasound-guided Regional Anesthesia – Basic – Upper Limb [Workshop] Instructed by: **Dr. Indu Singh**

Ultrasound-guided Regional Anesthesia – Advanced – Torso [Workshop] Instructed by: **Dr. Shalini Dhir**

Track: Regional and Acute Pain; Perioperative
Ultrasound and Regional Anesthesia
Presented by: Dr. Su Ganapathy

POSTER DISCUSSIONS

Airway Management and Ambulatory

Anesthetic Management of latrogenic

Tracheal Rupture

Presented by: Dr. Joanne Dion

Coauthor: Dr. Achal Dhir

Cardiovascular and Thoracic

Combined Heart and Liver Transplant:

Our Experience

Presented by: Dr. Pratyush Gupta (Clinical Fellow)
Coauthors: Drs. Achal Dhir, Wojciech Dobkowski,
and David Sommerfreund

Pre-washed PRBCs Prevent Hyperkalemia in Massive Transfusion Presented by: Dr. Pratyush Gupta (Clinical Fellow) Coauthor: Dr. Achal Dhir

Obstetric Anesthesia

Anesthetic Management of a Paturient
with Severe Mitral Stenosis: A Case Report
and Literature Review
Presented by: Dr. Kristine Marmai
Coauthors: Dr. Indu Singh and Dr. Thomas Quach

Fetal Benefit of Maternal Oxygen Supplementation
During Elective Caesarean Section Under
Neuroaxial Anesthesia: A Systematic Review
Presented by: Dr. Kristine Marmai
Coauthors: Dr. Indu Singh and Dr. Phil Jones

Pharmacology: Basic Science and Clinical
Intraoperative Stability of Patients with Carcinoid
Syndrome Treated with Long-Acting Octreotide
Presented by: Dr. Jon Borger
Coauthors: Dr. Neal Badner and Dr. Daryl Gray





PUBLICATIONS

Peer-Reviewed

- Tran DTT, Badner NH, Nicolaou G, Sischeck W.
 Arterial PCO₂ changes during thoracoscopic surgery with CO₂ insufflation and one lung ventilation.
 HSR Proceedings in Intensive Care and Cardiovascular.
 Anesthesia. 2010; 2 (3): 191-97.
- Ioscovich A, Shen O, Sichel JY, Lajos Y, Orkin D,
 Bromiker R, Briskin A.
 Remifentanil-nitorglycerin combination as an anesthetic support
 for ex utero intrapartum treatment (EXIT) procedure.
 J Clin Anesth. 2011 Mar; 23 (2): 142-4.
- Hall R, Beattie S, Cheng D, Choi P, Denault AY, Mazer D, et al. Can We Develop a Canadian Perioperative Anesthesiology Clinical Trials Group?
 Can J Anaesth. 2010 Dec; 57 (12): 1051-57.
- Cheng D, Martin J, Dunning J, Shennib H, Muneretto C, Schueler S, et al.
 Endovascular Aoritc Repair versus Open Surgical Repair for Descending Thoracic Aortic Disease: A Systematic Review and Meta-Analysis of Comparative Studies.
 J Am Coll Cardiol. 2010 Mar 9; 55 (10): 986-1001.
 - **This paper is highlighted in TCTMD the Premier Educational Resource for the Interventional Cardiology and Endovascular Medicine Community. This paper is also featured on The Doctor's Channel at: www.thedoctorschannel.com/video/2908.html.

5. Cheng D.

Preoperative non-Invasive Stress Testing. BMJ. 2010 Jan 18; 340: b5401.

- 6. McAlister V, Burns KE, Znajda T, **Church B**.

 Hypertonic Saline for Perioperative Fluid Management.

 Cochrane Database Syst Rev. 2010; (1):CD005576.
- Kiviniemi AM, Frances MF, Tiinanen S, Craen R,
 Rachinsky M, et al.
 A-adrenergic effects on low-frequency oscillations in blood pressure and R-R intervals during sympathetic activation.

 Exp Physiol. 2011 Aug;96(8):718-35. Epub 2011 May 20.
- 8. Fabregas N, Craen RA.

 Anaesthesia for endoscopic neurosurgical procedures.

 Curr Opin Anaesthesiol. 2010 Oct; 23 (5): 568-75.
- Merchant R, Bosenberg C, Brown K, Chartrand D,
 Dain S, Dobson J, et al.
 Guidelines to the Practice of Anesthesia: Revised Edition.
 Can J Anaesth. 2011 Jan;58(1):74-107.
 - Ultrasound guided sciatic nerve block in infants and toddlers produces successful anesthesia regardless of the motor response.

Ped Anesth 2010; 20 (7): 633-7.

10. Ponde V, Dhir S.

2010-2011 Annual Report | page 62 Department of Anesthesia and Perioperative Medicine | 2010-2011 Annual Report | page 63





- Ganapathy S, Brookes J, Bourne R.
 Local Infiltration Analgesia.
 Anesthesiol Clin. 2011 Jun; 29 (2):329-42.
- Goldgberg A, Paulter SE, Harle C, Dennis A,
 Rachinsky I, Dhir A, et al.
 Giant Cystic Pheochromocytoma Containing High Concentrations
 of Catecholamines and Metanephrines.
 J Clin Endocrinol Metab. 2011 Aug; 96 (8): 2308 2309.
- Leung LS, Petropoulos S, Shen B, Luo T, Herrick I, et al. Lesion of cholinergic neurons in nucleus basalis enhances response to general anesthetics.
 Exp Neurol 2011:228:259-269.
- Jones PM, Bainbridge D, Dobkowski W, Harle CC, Murkin JM, et al.
 Comparison of the MAX-ACT and K-ACT values when using Bivalirudin Anticoagulation During Minimally Invasive Hybrid Off-Pump Coronary Artery Bypass Graft Surgery.
 J Cardiothorac Vasc Anesth. 2011:25 (3): 415-8.
- 15. Jones PM, Loh FL, Youssef HN, Turkstra TP. A randomized comparison of the GlideRite® Rigid Stylet to a malleable stylet for orotracheal intubation by novices using the GlideScope®. Can J Anesth. 2011; 58: 256-61.
- Jones PM, Turkstra TP, Armstrong KP, Armstrong PM, Harle CC.
 Comparison of a single-use GlideScope Cobalt® videolaryngoscope with a conventional GlideScope® for orotracheal intubation.
 Can J Anaesth 2010; 57: 18-23.

- 17. Fraser LA, Kiaii B, Shaban J, Islam A, Diamantouros P,

 Jones PM, et al.

 Cardiac pheochromocytoma presenting during pregnancy.

 BMJ Case Reports. 2010; Oct 21.
- McKay C, Allen P, Jones PM, Chu MW.
 Aortic arch replacement and elephant trunk procedure: an interdisciplinary approach to surgical reconstruction, perfusion strategies and blood management.
 Perfusion. 2010; 25: 369-23.
- Lavi S, Lavi R.
 Conditioning of the heart: From pharmacological interventions to local and remote protection. Possible implications for clinical practice.
 Int J Cardiol. 2011; 146(3):311-8.
- 20. Urbieta VH, Lavi R, Zhu XY, Crane JA, Textor SC, Lerman A, Lerman LO. Early atherosclerosis modulates the renal functional impact of renovascular disease on the swine kidney. AJP-Renal Physiology, 2010; 299(1):F135-40.
- Lavi R, Katznelson R, Cheng D, Minkovich L,
 Klein A, Carroll J, Karski J, Djaiani G.
 The effect of Nasogastric Tube application During Cardiac Surgery
 on Postoperative Nausea and Vomiting A Randomized Trial.
 J Cardiothorac Vasc Anesth. 2011; 25(1):105-9.
- 22. Lavi R, Rowe JM, Avivi I.

 Lumbar Puncture: It is time to Change the Needle?

 Eur J Neurol. 2010; 64(2):108-13.

23. Lavi R, Lavi S.

Remote ischaemic conditioning before exercise: are we there yet?

Heart. 2011 Aug; 97(16):1284-5. Epub 2011 Jun 2.

- 24. Lavi R, Zhu XY, Chade AR, Lin J, Lerman A, Lerman LO. Simvastatin Decreases Endothelial Progenitor Cell Apoptosis in the Kidney of Hypertensive Hypercholesterolemic Pigs. Arterioscler Thromb Vasc Biol. 2010; 30(5):976-83.
- 25. Mannheim D, Herrmann J, Bonetti PO, Lavi R, Lerman LO, Lerman A. Simvastatin preserves diastolic function in experimental hypercholesterolemia independently of its lipid lowering effect. Atherosclerosis. 2011; 216(2):283-91.
- 26. VanUum S, Chaudhary S, Morley-Forster PK.

 Chronic Opioid Therapy: Does it affect the endocrine system?

 Canadian Journal of Diagnosis. 2010; 27 (3): 37-38.
- Strategies for Accurate Endograft Placement in the Proximal Thoracic Aorta.

 Semin Cardiothorac Vasc Anesth. 2010 Sep;14(3):196-200.

 Epub 2010 Jul 14.

27. Nicolaou G. Forbes TL.

28. Ralley FE, Berta D, Binns V, Howard J, Naudie DD.
One intraoperative dose of transexamic acid for patients having primary hip or knee anthroplasty.
Clin Orthop Relat Res. 2010 Jul; 468(7):1905-11.

29. Turkstra TP, Armstrong PM, Jones PM, Quach T.

GlideScope use in the obstetric patient.

Int J Obstet Anesth. 2010; 19: 123-4.

EPICOR PUBLICATIONS

- 30. Wang G, Bainbridge D, Martin J, Cheng D.
 N-acetylcysteine in cardiac surgery: Do the benefits outweigh the risks? A meta-analytic reappraisal.
 J Cardiothor Vasc Anesth 2011;25(2):268-275.
- 31. Ad N, Cheng D, Martin J, Berglin E, Chang B, Doukas G, et al. Surgical Ablation For Atrial Fibrilation in Cardiac Surgery: A Consensus Statement of the International Society for Minimally Invasive Cardiothoracic and Vascular Surgery. Innovations. 2010; 5(2): 74-83.
- 32. Cheng D, Ad N, Martin J, Berglin E, Chang B, Doukas G, et al.
 Surgical Ablation For Atrial Fibrilation in Cardiac Surgery:
 A Meta-analysis and Systematic Review
 Innovations. 2010; 5(2): 84-96
- 33. Cheng D, Martin J, Novick R.
 Off-pump bypass CABG: the beat goes on.
 Innovations: Technology & Techniques in Cardiothoracic & Vascular
- 34. Cheng D, Martin J.

Surgery 2010; 5(2):67-69.

Evidence based practice and health technology assessment: a call for anesthesiologists to engage in knowledge translation.

Can J Anesth 2011; 58(4):354-63.









- 35. Cheng D, Martin J, Lal A, Diegler A, Folliguet T, Nifong LW, et al.

 Minimally invasive versus conventional open mitral valve surgery:
 a meta-analysis and systematic review.

 Innovations: Technology & Techniques in Cardiothoracic & Vascular Surgery 2011;6(2):66-77.
- 36. Falk V, Cheng D, Martin J, Diegeler A, Folliguet T, Nifong LW, et al.

 Minimally invasive versus conventional open mitral valve surgery:

 A consensus statement of the International Society of Minimally
 Invasive Coronary Surgery (ISMICS) 2010.

 Innovations: Technology & Techniques in Cardiothoracic & Vascular
 Surgery 2011;6(2):84-104.
- 37. Zhang X, Wu Z, Peng X, Wu A, Yue Y, Martin J, Cheng D.

 Prognosis of diabetic patients undergoing coronary artery bypass surgery compared with nondiabetics: A systematic review and meta-analysis.

 J Thorac Vasc Surg 2011; 25(2):289-98. Epub 2010 Dec 13.
- 38. Sreedharan A, Martin J, Leontiadis GI, Dorward S, Howden CW, Forman D, Moayyedi P.

 Proton pump inhibitor treatment initiatied prior to endoscopic diagnosis in upper gastrointestinal bleeding.

 Cochrane Database Syst Rev 2010;7(7):CD005415.

Books and Book Chapters

1. Bainbridge D, Cheng D.

Fast track cardiac anesthesia: Process of care [Chapter 2 Part 1]. In: Sladen RN, editor. DVD Postoperative cardiac care. New York: Lippincott Williams & Wilkins; 2011. p. 15-22.

2. Bainbridge D, Cheng D.

Postoperative cardiac recovery and outcomes [Chapter 33]. In: Kaplan JA, Reich DL, editors. Kaplan's cardiac anesthesia: The echo era. Philadelphia: Saunders; 2011. p. 1010-1024.

3. Bainbridge D, Cheng D.

Triage in the ICU: Selection for fast track. In: Sladen RN, editor. 2010 SCA Monograph on Postoperative Cardiac Care.

4. Butler R, Cheng D.

Routine mechanical ventilation after cardiac surgery [Chapter 2 Part 2]. In: Sladen RN, editor. DVD Postoperative cardiac care. New York: Lippincott Williams & Wilkins; 2011. p. 23-30.

5. Buller R, Cheng D.

Routine postoperative ventilation after cardiac surgery. In: Sladen RN, editor. 2010 SCA Monograph on Postoperative Cardiac Care.

6. Ahmed EO, Cheng DC.

Postoperative care after aortic surgery [Chapter 19]. In: Subramaniam K, editor. Anesthesia and perioperative care for aortic surgery. New York: Springer; 2011. p. 417-426.

7. **Ganapathy S**, Chan V (issue editors).

Regional analgesia and acute pain management: major leaps in small steps? [preface]
Anesthesiol Clin. 2011 Jun;29(2):xiii-xiv. doi: 10.1016/j.
anclin 2011 04 012

8. Herrick IA, Higashida R, Gelb AW.

Occlusive cerebrovascular disease: Anesthetic considerations. In: Cottrell JE, Young WL, eds. Anesthesia and Neurosurgery, 5th ed. St Louis: Mosby; 2010. p 278-295.

9. Lavi R, Cheng D.

Immune system interactions with neuroendocrine response during cardiac surgery [Chapter 4]. In: 2011 SCA Monograph on the metabolic response to anesthesia & surgery.

Non Peer-Reviewed/Letters/Editorials/Reviews

- Cheng D, Martin J, Ferdinand F, Puskas J, Diegleler A, Allen K. Editorial. Endoscopic Vein-Graft Harvesting: Balancing the Risk and the Benefits. Innovations. 2010: 5 (2): 70-3.
- 2. Cheng D, Martin J, Novick R.

Editorial. OPCAB versus On-Pump Surgery: The Beat Goes On. Innovations. 2010; 5 (2): 67-69.

3. Fuller J.

Book Review. Anesthesia Student Survival Guide –
A Case Based Approach. Jesse M. Ehrenfeld, Richard D. Urman,
Scott Segal (eds). Springer, 2010, 534 pages.
Can J Anesth 2010 Nov; 57 (11): 1048-1049

4. Carnegie C, Dain S, Mack P, Bhandari R, Brown T, Burke E, et al.

Acute Pain Management: Self Directed Learning Package.

www.lhsc.on.ca/priv/pain/sipacm.html

5. Jones PM, Turkstra TP.

Mitigation of rocuronium induced anaphylaxis by sugammadex: the great unknown. Anaesthesia. 210; 65 (1): 89-90 6. Lavi R, Lavi S.

Letter. Melatonin and myocardial protection Int J Cardiol. 2011 Jul 15; 150(2):207. Epub 2011 May 17.

7. Lavi R, Lavi S.

Letter. Remote ischemic conditioning – The unknown. 2011 Jul 1; 150(1):96. Epub 2011 Apr 9.

8. McKeown KJ, Sischek W.

Letter. Incarcerated diaphragmatic hernia and cardiac tamponade. Can J Anaesth. 2011 Mar:58(3):334-5.

Abstracts (Presented and/or Published)

- Brookes J, Ganapathy S, Stothart D, et al.
 Comparison of continuous transversus abdominis plane block
 (TAPB) with thoracic epidural analgesia (TEA) for postoperative analgesia following abdominal surgery a randomized open label study [Clinical Investigation abstract].

 American Society of Regional Anesthesia & Pain Medicine (ASRA):
 Annual Spring Pain Meeting & Workshops; 2011 Spring.
- Brookes J, Morris L, Ganapathy S, Johnson M, Stothart D.
 Cadaveric evaluation of ultrasound guided transversus abdominis plane block [abstract].

 (ASRA): Annual Spring Pain Meeting & Workshops; 2011 Spring.
- Milne K, Brookes J, Stothart D, Ganapathy S, Johnson M.
 Creation of a Digital Atlas for Ultrasound Guided Regional Nerve Blocks [abstract]
 (ASRA): Annual Spring Pain Meeting & Workshops; 2011 Spring.
 See this abstract, highlighted in the "Best of" category for the Meeting.







Innovation: Treating Anaphylaxis Caused by Rocuronium with Sugammadex Faculty: Phil Jones and Tim Turkstra

In January 2010, a letter was published in Anaesthesia by Dr. Jones and Dr. Turkstra that proposed a new approach to the mitigation of Rocuronium induced anaphylaxis by Sugammadex (Jones and Turkstra 2010). Prior to the publication of this correspondence, there had been no mention of this pharmacological approach with concerns to Rocuronium induced anaphylaxis, and needless to say, this innovative and novel idea did not go unnoticed.

By January of 2011, two groups had published case reports depicting the successful treatment of Rocuronium induced anaphylaxis with Sugammadex (McDonnell, et al. 2011) (Pederson, Findsen and Olsen Skovgaard 2010). This pharmacological approach to Rocuronium induced anaphylaxia is extremely new and is currently unlicensed, however in their case report, McDonnell and fellow authors note that it is an approach that is "worthy of further investigation" (McDonnell, et al. 2011).

The Department looks forward to seeing further explorations within the literature regarding the use of Sugammadex in the mitigation of Rocuronium induced anaphylaxis.

Jones, PM, and Turkstra, TP. "Mitigation of Rocuronium induced anaphylaxis by suggamadex: the great unknown." Anaesth 65 (2010): 89-90.

McDonnell, NJ, TJG Pavy, LK Green, and PR Platt. "Suggamadex in the managment of rocuronium induced anaphylaxis." Br J Anaesth 106, no. 2 (2011): 199-201.

Pederson, NA, L Findsen, and K. Olsen Skovgaard. "Should Suggamadex be used for the treatment of anaphylaxia induced by Rocuronium [abstract]." Anesthesiology: ASA Abstracts, 2010: A539.

Kurrek MM, Dain S, Twersky RS, Levine M, Chung F.
 Improving Knowledge about Office Based Anesthesia: What are we waiting for? [Presented Abstract].
 Society for Ambulatory Anesthesia (SAMBA): 25th Annual Meeting; April 29, 2011. Baltimore, MD, USA.

5. **Dhir A**.

Anesthesia for Non-Transplant Surgery in a Post-Transplant Patient [Abstract].

Ontario Anesthesia Annual Conference: Abstract Book.

6. **Dhir A**.

Antiplatelet agents and their status [Abstract]. IACTA 2011; abstract book.

7. Dion J, Dhir A.

Management of latrogenic Tracheal Rupture [Abstract]. CAS 2011; Abstract Book.

8. **Dhir A**.

Simulation in Anesthesia Training [Abstract]. 14th Annual ACA; Manila Abstract Book.

9. Dhir A.

TEE in Non-Cardiac Surgery [Abstract].
Toronto TEE Symposium; 2010 Abstract Book.

10. **Ganapathy S**, **Vannelli A**, Howard J, et al.

Fast track arthroplasty using periarticular wound infusion [Abstract]
American Society of Regional Anesthesia & Pain Medicine (ASRA):
Annual Spring Pain Meeting & Workshops; 2011 Spring.

11. Gupta P, **Dhir A**, **Dobkowski W**. Combined Heart-Liver Transplantation, a case report [Abstract]

CAS 2011; Abstract Book.

12. Gupta P, **Dhir A**, Ralley R.

Combined Heart-Liver transplantation: a case report [Abstract] CAS 2011; Abstract Book

13. Herrick IA, Noorani N, Janzen T, Cheng D.

Evidence-embedded clinical decision support and collaboration to enhance patient safety and outcomes [Abstract].

Ontario's Inaugural Innovation Fund Showcase – MoHLTC/OMA;

November 18, 2010, Toronto, ON.

14. Koo KKY, Choong K, Cook DJ, Herridge M,

Newman A, Lo V, Bruns K, Schulz V, et al.

Development of a Canadian Survery of Mobilization of Critically Ill Patients in Intensive Care Units: Current Knowledge, Perspectives and Practices [Abstract].

Canadian Critical Care Society Conference; November 2, 2010. Toronto, ON.

15. Law L, Bosma K, **Schulz V**, Sen M, et al.

Instituting Change in Clinical Practice: A Quality Improvement Initiative in Critical Care Delirium Assessment [Abstract].

Canadian Critical Care Society Conference; November 2, 2010.

Toronto, ON.

16. Rachinsky M, Wedlake C, Bainbridge D, Armstrong K, Ganapathy S, et al.

Archives. 2010 Sept-Oct; 35 (5).

Augmented Reality Guidance System, Novel Method of Needles Navigation for Ultrasound-guided Peripheral Nerve Blocks [Abstract]. Regional Anesthesia & Pain Medicine: ASRA Spring Meetings

- 17. DaSilva A, Rachinsky M, Ganapathy S, Gonder J, Siebert L.

 Evaluation of Feasibility of Real-Time Ultrasound Guidance for

 Retrobulbar Block in Patients Undergoing Eye Surgery [Abstract]

 Regional Anesthesia & Pain Medicine: ASRA Spring Meetings

 Archives. 2010 Sept-Oct; 35 (5).
- Prevention of postdural puncture headache in obstetric patients having epidural catheters for labour analgesia: a systematic review of randomized controlled trials [Abstract].

 American Society of Regional Anesthesia & Pain Medicine (ASRA).
- April 24, 2011. Toronto, ON.
- 19. **Singh S**, Silva M.

 Anesthestic Management of a Paturient with Fontan Circulation:

18. Singh S, Bradbury C.

a case report and literature review [Abstract].

Society for Obstetric Anesthesia and Perinatology (SOAP); 43rd

Annual Meeting. 2010. Nevada, USA.

20. Singh S, Silva M.

Ultrasound Guided TAP Blocks for postcesarean pain relief: a pilot study [Abstract].

Society for Obstetric Anesthesia and Perinatology (SOAP); 43rd Annual Meeting. 2010. Nevada, USA.

21. Silva M, Singh S, Lavi R, Badder S.

Anesthetic management of a parturient with severe aortic valve stenosis: a case report and literature review [Abstract]
Society for Obstetric Anesthesia and Perinatology (SOAP);
43rd Annual Meeting. 2010. Nevada, USA.

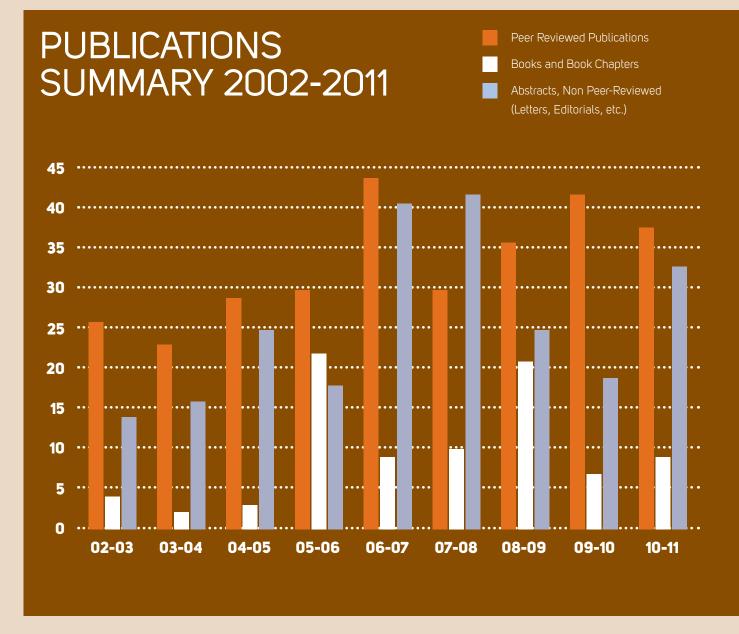
22. Silva M, Singh S, Lavi R.

Anesthetic management of a parturient with critical aortic stenosis for c-section. First congress on cardiac problems in pregnancy [Abstract].

2010. Valencia, Spain

- 23. Alabdulhadi O, Turkstra TP, Parrent A.
 Case Report: Air Embolus During Deep Brain Stimulator Insertion [Abstract].
 Canadian Anesthesiologists' Society; Annual Meeting.
 June 2010: Toronto, ON.
- 24. Smitheram AK, Turkstra TP, Jones PM, et al. RCT: The Flex-Tip ETT does not Reduce the Incidence of Postoperative Sore Throat [Abstract] Society of Airway Management; Annual Meeting. October 2010.
- 25. Patel SJ, Turkstra TP.

Use of Reservoir to Mitigate ETT Cuff Pressure [Abstract].
Canadian Anesthesiologists' Society; Annual Meeting.
June 2010. Toronto, ON.



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GRANTS AND FUNDING

Peer-Reviewed Grants

Bainbridge D. (Co-Investigator), et al.
 Canadian Foundation for Innovation: Image-Guided Minimally Invasive Intervention and Simulation.
 2010: \$644,401 [Year 2 of 4] of \$2, 577,602

- 2. Cheng D, Martin J. (Co-Principal Investigators)
 - a. AHSC AFP Innovation Grant. Evidence Based Decision Making and Health Technology Assessment for Anesthesia and Surgery – Building a Centre of Excellence.
 - 2011: \$196,250 [Year 1 of 2] of \$372,500
 - AHSC AFP Innovation Grant. Evidence Based Perioperative Drug Therapy:
 Getting Evidence into Policy and Practice.
 2009 2011: \$92,500 [Year 2 of 2] of \$205,000

3. **Dhir S**.

- a. Physician Services Inc. Foundation: Success Rate of Infra-Clavicular Blocks Comparison of Ultrasound vs. Neurostimulation Guided Catheter Placement 2010: \$21,000 [Year 2 of 2] of \$60,000
- 4. Dhir S. (Principal Investigator), Ganapathy S.
 - a. Academic Medical Organization of Southwestern Ontario (AMOSO)
 Opportunities Fund: Success Rate of Infra-Clavicular Blocks Comparison of Ultrasound vs. Neurostimulation Guided Catheter Placement.
 2010: \$16,250 [Year 2 of 2] of \$32,500.

- 5. **Granton J**. (Principal Investigator), **Murkin J**, **Jones PM**, **Min F**, et al.

 UWO Internal Research Fund (IRF): Near-Infared Spectroscopy Tissue Oxygen

 Saturation Recovery Rate Responsiveness to Therapy for Severe Sepsis.

 January 2010 January 2012: \$9,940.
- 6. Harle CC, et al.

Department Internal Research Fund: Starch or Saline After Cardiac Surgery – A Randomized Controlled Trial. 2010: \$4,000 [Year 2 of 2] of \$10,000.

Herrick IA. (Principal Investigator), Cheng D.
 AHSC AFP Innovation Grant. Managing perioperative standardized care and interventions using evidence and collaboration tools
 2009 - 2011: \$187,500 [Year 2 of 2] of \$415,000

8. Jones PM.

AMOSO Opportunities Fund: Randomized Isoflurane and Sevoflurane Comparison in Cardiac Surgery: A Prospective Randomized Clinical Trial (RISCCS) 2011: \$32,500 [per year / Year 2 of 3] of \$97,500.

9. Jones PM.

Department Internal Research Fund: The effect of a perioperative smoking cessation program.

October 2010 - September 2011: \$10,000

10. **Lavi R**.

Remote Endothelial Preconditioning Before CABG Surgery.

Department Internal Research Fund; 2009 - 2010: \$10,000

Academic Development Fund; 2009 - 2010: \$8,500

11. Lavi S, Lavi R. (Co-Principal Investigator)

AMOSO Opportunities Fund: Sevuflorane Sedation During Primary Percutaneous Coronary Intervention – A randomized pilot trial. 2010: \$32,500 [Year 2 of 3] of \$195,000

12. Lavi R, et al.

The American Society of Anesthesiologists – Anesthesia Patient Safety
Foundation: The association between platelet inhibition and perioperative major
adverse cardiac events in postpercutaneous coronary intervention patients
undergoing non-cardiac surgery.
2010: \$49,278 [Year 2 of 3] of \$147,835

13. McGrath P, Morley-Forster PK. (Co-Investigator)

Canadian Insititutes of Health Research (CIHR): Population and Puiblic Health Fund: Identification of physical and psychosocial predictors of chronic pain in children and adolescents: a first step towards prevention.
2010: \$99,983

14. Morley-Forster PK, Railton C.

Earl Russell Program Trainee Grant: Plasma Concentration of Ketamine and Norketamine in Patients Using Topical Application of 10% Ketamine for Neuropathic Pain.

2011: \$8,000

15. St-Lawrence K, Morley-Forster PK. (Co-Investigator)

The University of Western Ontario, Academic Development Fund: *Investigating the changes in neural activity caused by chronic pain in patients with fibromyalgia*. 2011: \$8.400

16. **Murkin J**. (Principal Investigator)

Heart and Stroke Foundation of Canada: *Genetic Determinants of Neurocognitive Dysfunction Following Cardiopulmonary Bypass*. 2010 -11: \$86,197 [Year 3 of 3] of \$258,592

17. **Schulz V**. (Principal Investigator)

Schulich School of Medicine and Denstistry, UWO: Teaching Palliative Care Through Experimental Learning. 2010: \$4,800

18. Sen M. Schulz V.

AMOSO Opportunity Fund: Assessment and Management of Delerium in the Intensive Care Unit 2010: \$32,500 [Year 2 of 3] of \$97,500

19. Singh, I. (Principal Investigator), Dhir S.

- a. Lawson Health Research Institute (LHRI) Research Grant: Efficacy of US guided TAP blocks for post cesarean section analgesia
 2010 Fall: \$10,000.
- b. Department Internal Research Fund: Optimization of Epidural Morphine Dosage with Multimodal Analgesia for Pain Control after Cesarean Section 2010: \$2,500

20. Turkstra T. (Prinicpal Investigator), Singh I.

Lawson Health Research Institute (LHRI) Research Grant: Evaluation of US
Assistance for Anersthesia Trainees for Spinal Placement in Paturients having
Cesarean Section: a Randomized Pilot Trial.
2010 Fall: \$8,600

Non Peer-Reviewed/Industry Grants

1. Morley-Forster PK. (Co-Investigator)

Pfizer Canada, funded: Multicentre Neuropathic Pain Database Study: Long term outcome of the pharmacologic management of neuropathic pain / Genetics and Economic burden of neuropathic pain.

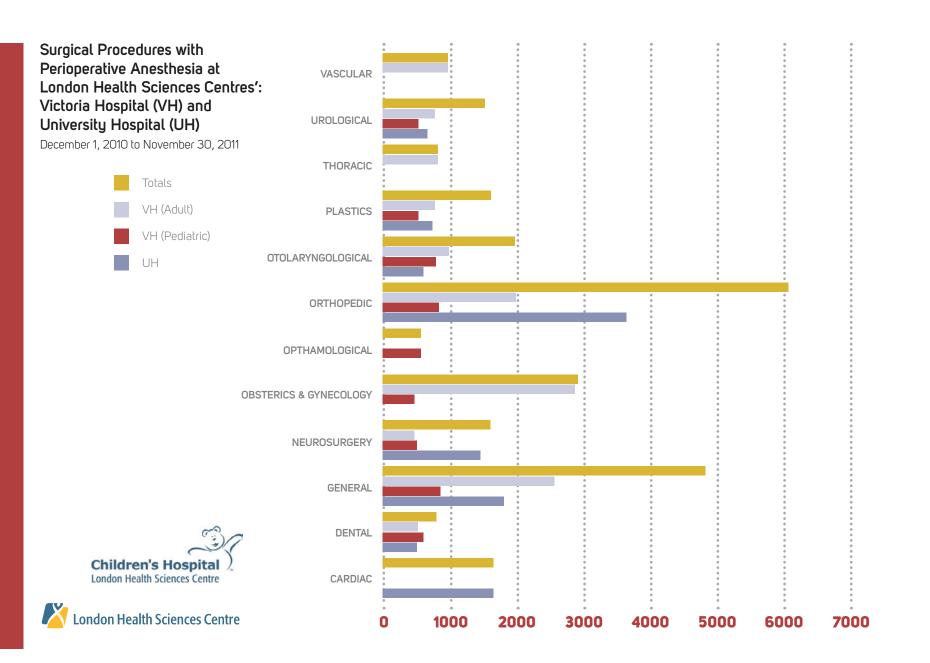
2007 - 2010: \$853,088

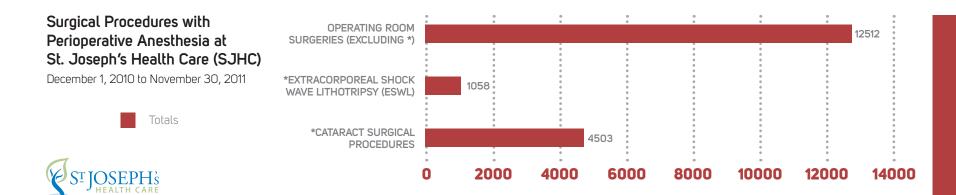
2. Murkin J. (Enrolment Site Principal Investigator).

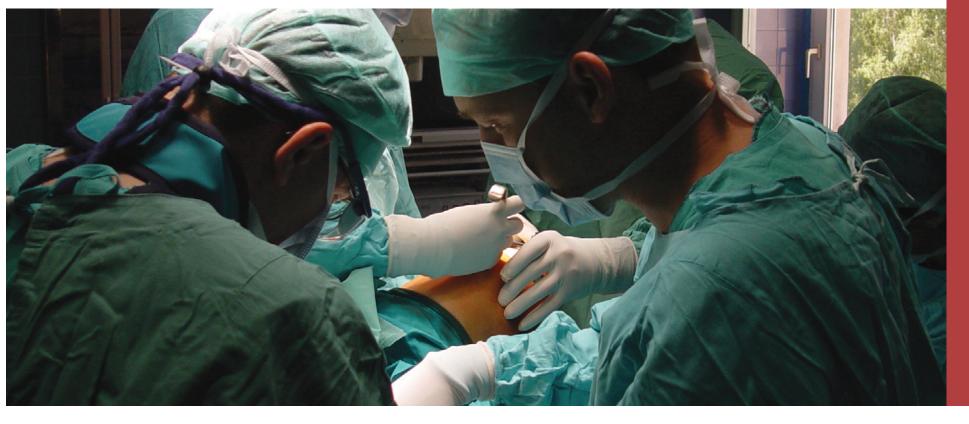
Ikaria Inc.: A Randomized, Double-Blind, Placebo Controlled, Multicentre Study of IK-001 to Evaluate Safety, Pharmacokinetics and Proof-of-Concept Efficacy for Reduction of Ischemia-Reperfusion Mediated Cardiac Injury in Subjects Undergoing CABG 2010: Prorated amount of \$14,000/patient Based on Full Enrolment [Year 2 of 3].



THE PAIN CLINIC AT
ST. JOSEPH'S HEALTH
CARE PRIDES ITSELF ON
PROVIDING INNOVATIVE
CHRONIC PAIN CARE
FOR PATIENTS







WORLD ANAESTHESIA DAY

A CELEBRATION OF ANESTHESIA AS A PROFESSION AND ALL OUR ACCOMPLISHMENTS

Who We Are & What We Do...

The Department of Anesthesia and Perioperative Medicine at the Schulich School of Medicine & Dentistry, The University of Western Ontario (UWO) consists of 79 departmental faculty members practicing at the teaching hospital sites of The London Health Sciences Centre (University & Victoria Hospitals) & St. Joseph's Health Care. London.

The modern anesthesiologist is involved in providing care for patients across all age groups and for a wide range of procedures. The anesthesiologist plays a key role in a patient's hospital experience, providing care in the preoperative, operative and postoperative settings, care for patients undergoing procedures outside of the operating room such as interventional Cardiology & Radiology, care in the Intensive Care Units (ICU) and in the Obstetrical Care Units and care for patients with acute and chronic pain.

SUBSPECIALTIES

- Pediatric Anesthesia
- Obstetric Anesthesia
- Intensive Care
- Trauma Anesthesia
- Cardiovascular Anesthesia
- Thoracic & Vascular Anesthesia
- Neuroanesthesia
- Ambulatory Anesthesia
- Acute and Chronic Pain
- Regional Anesthesia
- Transplant Anesthesia

CLINICAL CARE

- Anesthesia: Preoperative, Intraoperative,
 Postoperative
- Acute/Chronic Pain
- Critical Care (ICU)
- Interventional Cardiology, Radiology
- Transfusion and Blood Conservation
- Neonatal/Geriatric/ Obstetric/Pediatric and other specialties
- Ambulatory Surgery
- Military Surgical Units and Humanitarian Services

Teaching – Training Our Future Anesthesiologists...

EDUCATION

- Medical Students
- Residents
- Fellowship Program
- Continuing Medical Education
- Health Professionals: Respiratory Therapy, Nursing, Perfusion Services, Paramedics, Anesthesia Assistants.

RESEARCH

- Patient Safety, Clinical Trials, Outcomes, Cost-Effectiveness
- Technology Applications and Assessment
- Multidisciplinary and Collaborative Research

The first successful demonstration of ether anesthesia on October 16, 1846, ranks as one of the most significant events in the history of Medicine. It took place at the Massachusetts General Hospital, home of the Harvard School of Medicine. The discovery made it possible for patients to obtain the benefits of surgical treatment without the pain associated with an operation.

World Anaesthesia Day commemorates this extraordinary event and the many benefits to humankind – advances in Anesthesia and Surgery – that it made possible.



demonstration of
Anesthesia at the
Massachusetts General
Hospital. Surgery without
pain was performed
for the first time.
Drawing by H. H. Hall

As the complementary fields of Surgery and Anesthesiology matured together, new skills were required of the anesthesiologist, including expertise in resuscitation, invasive monitoring fluid replacement, airway management, oxygen transport, temperature management, metabolic control, operative stress reduction, and postoperative pain control.

World Anaesthesia Day is celebrated in many countries around the world. The spelling of the 'Anaesthesia' reflects a popular international convention that preserves the diphthong (æ or ae) of Greek origin. The Canadian Anesthesiologists' Society, followed by most Canadian anesthesia departments, adopted the North American spelling in 1999.

Innovation...

NEW TECHNIQUES & TECHNOLOGIES

Department members are leaders, nationally and internationally, in a wide range of research and academic activities to advance the effectiveness and safety of anesthesia.

The Department also provides workshops and continuing education events to assist anesthesiologists in the region and across the country to stay up-to-date with new techniques and technologies.

These activities include:

- Advanced simulation technologies at the Canadian Surgical Technologies & Advanced Robotic Centre (CSTAR)
- Surgical training and research in minimally invasive procedures at CSTAR
- Sophisticated techniques for regional anesthesia and pain management
- Modern application of ultrasound-guided care in the perioperative setting

Our International Outreach...

In addition to practicing at the London Hospitals' teaching sites, some members of the Department also contribute their time and expertise to provide education and care in developing areas of the world.

Recent endeavors include: Honduras, Peru, Guatemala, and Mongolia.

The Department is also proud of the work of one of our members who serves as a Medical Officer with the Canadian Forces currently stationed in Afghanistan.

THE FIRST
SUCCESSFUL
DEMONSTRATION OF
ETHER ANESTHESIA
RANKS AS ONE
OF THE MOST
SIGNIFICANT EVENTS
IN THE HISTORY
OF MEDICINE



DEPARTMENT OF ANESTHESIA AND PERIOPERATIVE MEDICINE

2010-11 : Annual Report

Department of Anesthesia and

Perioperative Medicine

uwoanesthesia.ca

London Health Sciences Centre

lhsc.on.ca

St. Joseph's Health Care, London

sjhc.london.on.ca

Schulich School of Medicine and Dentistry

The University of Western Ontario

schulich.uwo.ca







