Surgery Strategic Clinical Network Newsletter

Our Mission
Bringing patients, clinicians, administrators and policy-makers together to advance surgical care in Alberta

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Get the Latest Surgical Research from the Surgery SCN Knowledge Resource Service @ http://krs.libguides.com/surgery

Keywords:
- Using Electronic Health Records for Surgical Quality Improvement in the Era of Big Data
- Analysis of Outcomes and Systematic Reviews
- The Preventive Surgical Site Infection Bundle in Colorectal Surgery: An Effective Approach to Surgical Site Infection Reduction and Health Care Cost Savings
- Fluid management and goal-directed therapy as an adjunct to Enhanced Recovery After Surgery (ERAS)

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Key Surgical SCN Articles - Latest for November 2014

Most recent surgery articles and reviews in SCN related topics, newly published guidelines, Cochrane Systematic Reviews, and other high impact and highly read research.

Using Electronic Health Records for Surgical Quality Improvement in the Era of Big Data
Anderson, J. E., & Chang, D. C.

Analysis of Open Abdominal Surgery in the Setting of Enhanced Recovery Surgery: A Systematic Review and Meta-analysis
Hughes, M. J., Venham, N. T., McIntyre, S., Harrison, E., & Wignone, S.

The Preventive Surgical Site Infection Bundle in Colorectal Surgery: An Effective Approach to Surgical Site Infection Reduction and Health Care Cost Savings
JAMA Surgery, 149(15), 1045-1052 (2014)

Fluid management and goal-directed therapy as an adjunct to Enhanced Recovery After Surgery (ERAS)
Miller, T. E., Roche, A. M., & Mythen, M.
Positive Outcomes at the Vesia – also known as the Alberta Bladder Centre

Multidisciplinary team-based care has resulted in reduced costs and other efficiencies at the Vesia – also known as the Alberta Bladder Centre in Calgary.

Vesia was established in 2011 by urologists Dr. Richard Baverstock and Dr. Kevin Carlson to address the increasing demand for lower urinary tract care. Vesia is a dedicated referral centre for diagnosis, treatment, and education of patients with neurological and non-neurological conditions affecting bladder and voiding function. These conditions are managed in a multi-disciplinary fashion structured to improve access to care for patients, while introducing efficiencies in the system to reduce delivery costs.

The Vesia care team is comprised of urologists, urogynecologists, internal medicine specialists, general practitioners, specially trained nurses and physiotherapists. Referrals are triaged to the most appropriate and most available practitioner. In 2012, Vesia was the recipient of the University of Calgary Department of Surgery award for Surgical Innovation. Prior to Vesia, Drs. Baverstock and Carlson were able to complete 6,000 patient visits per year; however, with the multi-disciplinary team approach, 18,000 annual patient visits are now possible. This has reduced patient wait times from over nine months to fewer than four months.

As leaders in lower urinary tract care, Vesia established a reconstructive and functional urology fellowship in 2013. Dr. Daniel Yanko was awarded the inaugural Canadian Urological Association—Pfizer Canada Clinical Fellowship in Incontinence in 2013, and Dr. Darren Desantis followed up with the same award for 2014. Their research has focused on the delivery model implemented by Vesia to treat overactive bladder (OAB) and other urinary incontinence issues.

To assess the impact of a multidisciplinary delivery model in caring for OAB, Dr. Yanko reviewed electronic medical records for the years prior to and following Vesia’s implementation. The year prior to implementation, the clinic saw 1,035 unique patients for 1,776 OAB-related visits, increasing the average frequency of visits per patient to 1.72, or 49 per cent. These patients also cost the healthcare system less, averaging $112.67—a decrease of approximately 21 per cent. Most of these savings were a result of a reduction in cystoscopy procedures, with only 313 (30 per cent) patients undergoing the procedure. Dr. Yanko presented these findings at the 69th Annual Meeting of the Canadian Urological Association held June 28 - July 1, 2014 in St. John’s, Newfoundland.

The reduction in costs and intensity of care is one aspect of this research, but one still must consider patient experiences. These aspects of the Vesia delivery model will be investigated in a prospective study led by Dr. Darren Desantis, who is currently studying novel patient-centered modes of communication using a digital dashboard.

The multi-disciplinary delivery model Vesia has established, and the supporting research program, is a prime example of local evidence-based innovation driving value for Alberta’s healthcare system.

The Vesia Urologists
from left to right
Dr. Kevin Carlson, Dr. Bryce Weber,
Dr. Richard Baverstock, Dr. Daniel Yanko
What is the National Surgical Quality Improvement Program?

The National Surgical Quality Improvement Program (NSQIP®) is a data collection, monitoring and analysis instrument that was developed by the U.S. Department of Veteran’s Affairs in 1994, and later adopted by the American College of Surgeons. NSQIP uses standardized definitions and a validated sampling strategy, and tracks clinical data from surgery to 30-days post-discharge. It provides robust, semi-annual risk-adjusted reports that benchmark hospital performance and identifies areas for improvement.

Canadian sites have begun to adopt the program successfully. In British Columbia, government funding was offered to support implementation of NSQIP provincially. Currently there are 25 hospitals across seven health authorities that have adopted NSQIP. Other Canadian sites include four Ontario hospitals and two hospitals in Montreal, Quebec.

The Current Progress of NSQIP in Alberta

The project started on October 1, 2014. A Surgeon and Anesthesia Champion have been identified at each of five hospital sites across Alberta, one hospital in each zone: Queen Elizabeth II Hospital (QEI – Grande Prairie); University of Alberta Hospital (UAH – Edmonton); Red Deer Regional Hospital Centre (RDRHC – Red Deer); Rockyview General Hospital (RGH – Calgary); and Chinook Regional Hospital (CRH – Lethbridge). Each site has hired a nursing lead (Surgical Clinical Reviewer (SCR)), who will undergo four weeks of intensive on-line web-based training. Each SCR will work with the Surgeon and Anesthesia Champions at their site to collect surgical outcome data via an online HIPAA-compliant, secure web-based platform. The team will use this clinical data to lead local surgical quality improvement efforts. Each participating site will receive risk-adjusted semi-annual reports. The first report is expected in summer 2015. In addition, each participating site can generate regular on-line reports that they will use to identify areas for focused quality improvement.

For any NSQIP inquiries, please contact: Irene.Wenger@albertahealthservices.ca
**aCATS Diagnosis Codes Update**
The aCATS team will roll-out the annual update to the aCATS code set by April 1, 2015. The new release currently contains 1,087 codes of which 59.6 per cent have undergone some type of change:
- 441 are not changing in any way
- 492 are updated to standard aCATS code format
- 83 are brand new codes

**aCATS Quantity vs Quality**
A major focus of this year was to spread aCATS across the province and efforts continue to accomplish this. Once this has been achieved the focus will shift to increasing the quality of the aCATS program. By utilizing one-on-one feedback from the users of aCATS, three surveys to different groups, and a focus group exercise with the Surgery SCN Core Committee, the team will identify all strengths and gaps of the current aCATS program and develop a strategy to address these gaps.

For any aCATS inquiries, please contact: Bryan.Atwood@albertahealthservices.ca

**New Additions to the aCATS Team**
- Charlene Moore (Site Lead, Grey Nuns, Covenant Health, Edmonton)
- Marlene Rhoades (Site Lead, Foothills Medical Centre, Calgary)
- Joan Sarsons (Lead, South Zone, Lethbridge)

**Recruitment of an aCATS Support Team**
Recruitment is underway for three new positions to support the efforts of the project and the Site Leads:
- A provincial communications coordinator
- A reports analyst for Edmonton / North zones
- A reports analyst for Central / Calgary / South zones

**Ready to Treat (RTT) Placemat**
We have partnered with the Path to Care team and created a RTT reference placemat to help staff more accurately track when a patient is medically, socially and functionally ready to receive treatment or surgery. The RTT Placemat is being delivered to Surgeons and Medical Office Assistants across the province. The aCATS team is also working with other Strategic Clinical Networks, including Bone & Joint Health, Cardiovascular Health and Stroke and Cancer, to distribute the placemat.

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**HOW TO ESTABLISH A READY TO TREAT DATE**

**DECESSION TO TREAT (DTT)** refers to the date when both the PATIENT and the provider decide that surgery is required.

**READY TO TREAT (RTT)** refers to the date when a PATIENT is medically, functionally and socially ready to receive the scheduled surgery.

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**RTT = DTT**

At an appointment with the SURGEON, the PATIENT and SURGEON have decided to proceed to surgery:

- PATIENT is medically, socially and functionally ready to treat.
- PATIENT has a planned absence (vacation, wedding, work, etc) that has no effect on the expected surgical date.
- PATIENT is not able to accept the first available appointment (for any reason), but does accept a subsequent appointment, and the delay is 6 days or less.

**RTT ≠ DTT**

At an appointment with the SURGEON, the PATIENT and the SURGEON have decided to proceed to surgery:

- PATIENT has seasonal restriction (farm season, oil & gas service, other seasonal work) that affects the expected surgical date by 7 days or more. RTT is the date agreed upon by PATIENT and SURGEON.
- PATIENT has a planned absence (vacation, wedding, etc) that affects the offered surgical date by 7 days or more. RTT is the first date PATIENT is available after their planned delay.
- PATIENT is pregnant and the surgery must wait until post-pregnancy. RTT is the date the PATIENT is available to have surgery following delivery.
- PATIENT is not medically ready and requires tests / treatments. RTT is the date PATIENT is ready once the tests and treatments are completed.
- PATIENT is waiting for Alberta Health Care number (if applicable in your zone). RTT is the date the patient is ready once the number is received.
Safe Surgery Checklist Update

Transition to Operations
The Safe Surgery Checklist (SCC) project will wrap up this month and will transition to AHS Surgical Services in the Zones. Implementation of the SCC has seen an increase in compliance from approximately 45 per cent to 91 per cent. We have learned many valuable lessons and have improved both provider and patient engagement over the life of this project. The Surgery SCN will provide ongoing support to the Zones as they continue to work towards 100 per cent compliance. A detailed transition plan has been developed and is available to anyone with interest in the plan going forward. We would like to thank everyone that has played a role in making the SCC a success.

SSC Auditor eLearning Module
An eLearning module has been developed to provide SCC auditors with a readily available resource on how to audit the SCC. The tool is ideal for new and current auditors and will help to facilitate consistent auditing provincially. The “Safe Surgery Checklist (SSC) – Auditors” module is available through AHS MyLearningLink.

Patient Engagement
We wanted to understand how patients feel about the SCC so we partnered with Patient and Community Engagement Research (PaCER) - a group of specially trained patient researchers. PaCER conducted focus groups and interviews with surgical patients across Alberta to hear about how patients experienced the SCC and to learn how this tool could become more patient-centric.

Based on PaCER’s recommendations, the Surgery SCN has taken measures to raise patient awareness about the SCC. A poster has been developed for use at Alberta surgical sites and information about the SCC is now available for patients online at myhealth.alberta.ca/safesurgery.

A video about the Checklist was produced and is available through iTunes or at: http://www.surgery101.org/2014/11/24/safe-surgery-checklist-1-pre-op-briefing/

Thanks to Dr. Jonathan White and his team for their efforts and expertise in producing this video.

Safe Surgery Checklist 1: Pre-op Briefing
POSTED ON NOVEMBER 24, 2014 BY SURGERY101
The Canadian Patient Safety Institute Recognizes Sandra Zelinsky

Accreditation Canada and the Canadian Patient Safety Institute have recognized Sandra Zelinsky, the Surgery Strategic Clinical Network’s Patient Advisor, as a Patient Safety Champion.

Sandra Zelinsky uses her experience as a patient to change the philosophy of patient engagement and remind us to consider patients up-front in decision-making. As a graduate of the Patient and Community Engagement Research (PaCER) program within the Institute for Public Health (IPH) at the University of Calgary, Sandra is using her research skills to advance patient engagement for Alberta’s Strategic Clinical Networks (SCNs), Accreditation Canada and the Canadian Patient Safety Institute.

Patient and community engagement researchers (PaCERs) are individuals living with various health conditions who are trained to design and conduct health research using specific adapted methods of qualitative inquiry. PaCER training includes over 120-hours of classroom sessions and a completion of an internship research study. Sandra and her colleagues used their skills and the specific PaCER methods to engage patients across Alberta in exploring their pre-surgical experiences.

When the Surgery SCN implemented the use of the Safe Surgery Checklist across its 59 surgical sites in Alberta, Sandra facilitated a study to examine how patients perceive the Safe Surgery Checklist. Sandra and the PaCER team found that the surgical patients were feeling anxious and concerned when staff repeatedly asked the same questions, because the patients were not aware about the checklist being used, and thus not engaged in the process. Excluding patients as part of the team when implementing the checklist was causing stress and patients wondered whether their surgical team really knew what was happening. One of the key findings was the idea that “patients want to know.” With this information the committee rewrote policies, adapted procedures and built patient-specific tools designed to improved patients surgical experience.

Surgical teams are now encouraged to talk with patients to explain the reason for the checklist and how repeated questions at each step help to keep them safe.

Sandra has supported the development of patient-specific learning tools, such as posters and a “Muppet Surgery” video podcast to help patients visually understand how the brief, timeout and debrief are the crucial elements of the checklist.

“We now have a standard patient-centered approach in place for the SCNs across Alberta where patients are core members of our teams,” says Tracy Wasylak, SCN Senior Program Officer, Alberta Health Services. “Sandra was the patient voice that was instrumental in changing our policies on how to include patients in our processes and is now one of 12 patient engagement researchers in the networks. She is truly a pioneer in actively researching patient engagement and helping us to gather credible data on how to move forward.”

“This project has been exciting to be a part of and the impact has been so rewarding,” says Sandra Zelinsky. “My experience as a patient brought me to the PaCER program, and when you have patients connecting with patients and doing the research, you get different results. We are on a level playing field and people will share and open up as soon as they know you are a patient too. We have the ability to change the way research is being done to affect patient engagement in healthcare.”
Welcome to Dr. Ron Moore, the Surgery SCN Scientific Director!

Dr. Moore is a native Edmontonian and graduate from the University of Alberta. He received his MD with Distinction and First Class Honors and Honors in Research in 1986, did postgraduate training in Vancouver and then returned to complete his surgical training in urology and research at the University of Alberta.

Dr. Moore received his PhD in experimental surgery and oncology research in 1991 under the supervision of Drs Chapman and McPhee. He was recruited to the University of Alberta through the Alberta Heritage Foundation for Medical Research (AHFMR) as a Clinical Investigator and renewed through to Senior Scholar. Currently he is a Professor in the Departments of Surgery and Oncology, and the Mr. Lube Chair in Uro-Oncology Research. He is also the surgical director of renal transplant.

Dr. Moore’s research focuses on novel therapeutics for treating bladder, prostate and kidney cancer, and means of improving survival of transplanted organs. This research has included laser surgery (including development of laser and light delivery/detection equipment PDT), drug development, drug testing, drug delivery, biochemical and biological modifiers, molecular markers, predictive assays, gene therapy and viral therapy. To accomplish this Dr. Moore has worked with multidisciplinary teams of clinicians, biologists, biochemists and engineers who collaborate to translate these preclinical studies.

Professional Associations and Memberships

- Canadian Urological Association (CUA)
- American Urological Association (AUA)
- Canadian Society of Transplantation (CST)
- American Society of Transplantation (AST)
- American Society of Clinical Oncology (ASCO)
- Canadian Uro-Oncology Group (CUOG)
- Society of Urological Oncology (SUO)
- Society of University Surgeons
- Urologic Society for Transplantation/Vascular Surgery
- Kidney Cancer Canada
- Bladder Cancer Canada
- American Association for Cancer Research (AACR)

Selected Publications

- Response of Bladder Carcinoma Cells to TRAIL and Antisense Oligonucleotide, Bcl-2 or Clusterin Treatments. Sun, Bo; Moibi, Jacob A.; Mak, Allan; Xiao, Zhengwen; Roa, Wilson; Moore, Ronald B.. Journal of Urology ; Mar 2009.
Enhanced Recovery After Surgery (ERAS)

The Enhanced Recovery After Surgery (ERAS) project is aimed at improving patient outcomes and reducing recovery time, complications and hospital length of stay by standardizing care and measuring performance before, during and after surgery. ERAS provides evidence-based protocols according to what works best for improving patient recovery - nutrition, mobilization and better control of pain and nausea are some of the key components of ERAS. This international program is proven to reduce hospital stays by more than 30 per cent and complications after surgery by up to 50 per cent. Another important part of the project is electronic data collection and real time reporting. ERAS allows the health care team to see the patient’s experience through the entire surgical journey, to measure success and to identify gaps or variance from the standard of care.

Lead by the Diabetes, Obesity and Nutrition SCN, ERAS is being piloted with colorectal surgery at six hospitals – Grey Nuns Community Hospital, Peter Lougheed Centre, Misericordia Community Hospital, Foothills Medical Centre, University of Alberta Hospital and the Royal Alexandra Hospital. To date, about 600 patients have been through the ERAS colorectal protocol and the results are promising.

The Surgery SCN will continue to support the implementation and will lead the spread and scale of ERAS at additional sites and for other surgery types. Alberta is just the third province in Canada to introduce ERAS and is unique in that the program will be implemented on a province-wide scale rather than site-based. Through our Partnership in Research and Innovation in the Health System (PRIHS) grant, we are researching ERAS as a “Strategy to Transform Care and Maximize Value”.

The research, led by Dr. Leah Gramlich (U of A) and Dr. Gregg Nelson (U of C), builds on the opportunity within AHS to generate new knowledge about the impact of a systems approach to implementation of ERAS, and enables international collaboration on surgical best practices, knowledge translation, and health economic research. Multiple ERAS protocols including cystectomy, pancreatectomy, partial nephrectomy, major gynecology surgery, esophageal and gastric resection will be implemented at the UAH, RAH and FMC over the next 2 years. In addition, the Surgery SCN is collaborating with other surgical centers who have expressed interest in implementing ERAS – Rockyview General Hospital, Red Deer Regional Hospital and Chinook Regional Hospital.

“ERAS is all about getting patients back to their normal self as quickly as possible,” says Dr. Gregg Nelson, Gyne-Oncology Surgeon, co-chair of the ERAS steering committee and co-PI of the ERAS PRIHS research. “The program is based on research on what works best for recovery, like changes to nutrition, anesthetics and pain control, and getting patients mobile more quickly after surgery. It also provides us with an electronic audit system that helps our teams monitor and evaluate their progress so they can make sure the best approach is happening every time, with every patient. Most importantly it involves the patient and family in understanding and taking part in their care to promote recovery.”

Early results from one of our ERAS hospitals:

**Nausea and Vomiting Cut in Half!**

**Ileus** Cut in Half!  **Abcesses Cut by 2/3!**

**Wound Infections Cut in Half**

**Pain delayed Discharge Cut by 2/3!**
Surgery Strategic Clinical Network Updates

The last few months have been very fruitful for our network. We have increased our aCATS presence through additional Site Leads and the dissemination of reports. The Safe Surgery Checklist compliance, measurement and reporting has been established and the project has now been transitioned to operations. This is a significant milestone not only for the Surgery Strategic Clinical Network, but also for Alberta Health Services.

In the coming months we eagerly anticipate the finalization of the 2015-2018 Provincial Surgical Plan, work which started in March of 2014, and is a first for Alberta Health Services. Over 40 clinicians, administrators and staff from across the province are engaged in identifying critical gaps in surgical care and developing solutions with the goal of creating a system which provides the right surgical care at the right place and time for all Albertans.

We have also had a change in our leadership team. Tracy Wasylak has relinquished her role as the Surgery SCN Senior Provincial Director to Jill Robert, who has resumed the role in an acting capacity. As a result, we also welcome Michelle Salesse as the new Acting Executive Director of the SSCN. Michelle was previously the Critical Care SCN Network Manager. We look forward to the continued growth and maturation of the network and continuing to work with you.

The leadership team of the Surgery Strategic Clinical Network
Senior Medical Directors: Dr. Doug Hedden and Dr. John Kortbeek
Scientific Director: Dr. Ron Moore
Senior Provincial Director: Jill Robert

New Surgery SCN Members
Dr. Vonda Bobart, Anesthesia, Fort McMurray
Dr. Geoff Ibbotson, Co-Chair, Provincial Trauma Committee
Irene Wenger, NSQIP Project Manager
Dr. Ron Moore, Scientific Director
Jill Robert, Senior Provincial Director (Acting)
Michelle Salesse, Executive Director (Acting)

Departing Surgery SCN Members
Tracy Wasylak, Senior Provincial Director, Surgery SCN
Dr. Mary Stephens, Former Co-Chair, Provincial Trauma Committee

If you wish to learn more about the Surgery SCN or become involved, please contact: Jill.Robert@albertahealthservices.ca or Michelle.Salesse@albertahealthservices.ca