Research and the Surgery Strategic Clinical Network

September 11, 2018
Declaration of Conflict of Interest

Nothing to declare
Overview

• What is the Surgery SCN and what do we do?

• What is our role in research?

• What is the next 5 years going to be like?
Just what is a Strategic Clinical Network?
Strategic Clinical Networks (SCNs) are creating improvements within focused areas of health care.

To get the most out of our health care system, AHS has developed networks of people who are passionate and knowledgeable about specific areas of health, challenging them to find new and innovative ways of delivering care that will provide better quality, better outcomes and better value for every Albertan.
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Current SCNs

1. Diabetes Obesity and Nutrition
2. Bone & Joint Health
3. Cardiovascular Health & Stroke
4. Cancer
5. Digestive Health
6. Respiratory Health
7. Kidney Health
8. Addiction & Mental Health
9. Emergency
10. Critical Care
11. Surgery
12. Seniors Health
13. Maternal Newborn Child & Youth
15. Primary Health Care Integration Network
The 2017–2020 Health Plan
and Business Plan

A healthier future.
Together.

Operational Plan

Strategic Clinical Networks™
2017-2020
Our Four Goals

Goal 1: Improve patients’ and families’ experiences.

Goal 2: Improve patient and population health outcomes.

Goal 3: Improve the experience and safety of our people.

Goal 4: Improve financial health and value for money.
What is the Surgery Strategic Clinical Network?

We’re a community of people who care about surgery in Alberta and want to make it better.
What does the Surgery SCN do?

- Implement a provincial plan for surgery
- Work with other leaders, government and other organizations
- Engage and empower Alberta’s surgical community
Our Philosophy

We provide pretty good surgical care in Alberta, but we know it can be better.

We believe it is possible to improve.

We want to come together as a community to get it done.
What is the scope of our work?

The whole patient's journey from start to finish of surgical care
Who can we talk to?

Anyone who interacts with a surgery patient along the way
Who is the Surgery SCN?

- Leadership Team
- Core Committee
- Wider community
What should you expect from us?
Point to the future.
SUMMARY OF
The Alberta Surgery Plan

OUR VISION:
Healthy Albertans.
Healthy Communities.
Together.

OUR MISSION:
To improve surgical care provided to Albertans.
STRATEGIC OBJECTIVE 1
We will improve access to integrated surgical care

Initiatives:
- Bring together a multi-disciplinary Working Group on Access to Surgical Care
- Publish a health evidence review on the issue of access
- Gather more data on access to surgical care
- Share our findings with patients and the public
- Develop and implement projects to test methods for improving access

STRATEGIC OBJECTIVE 2
We will provide safe, high-quality surgical care

Initiatives:
- Bring together a multi-disciplinary Working Group on Surgical Safety and Quality
- Increase the use of ERAS and other care pathways
- Increase the implementation of active surgical quality programs such as NSQIP at all hospitals
- Enhance the use of the Safe Surgery Checklist
- Increase the use of patient-reported outcome data

STRATEGIC OBJECTIVE 3
We will build a strong surgical community

Initiatives:
- Conduct regular SCN visits to each hospital
- Convene an annual Provincial Surgical Forum starting in fall 2018
- Review the operation of our Core Committee
- Develop strategies on engagement and communication and research

STRATEGIC OBJECTIVE 4
We will use analytics and evidence to guide decisions

Initiatives:
- Bring together a multi-disciplinary Working Group on Surgical Analytics
- Develop a unified surgical data strategy and analytical framework
- Work with AHS Analytics to create a provincial surgical data repository accessible to our community
- Develop the concept of a “surgical scorecard”
Connect.
Listen.

Think.

Ask hard questions.

Act.
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The Safe Surgery Checklist (SSC) is a communication tool that is used to assist surgical teams in reducing and preventing errors during surgery. Reinforcing safety and quality in the OR, the SSC also decreases complications, improves efficiency and ensures better overall outcomes for patients.

The Surgery SCN would like to thank our operational and corporate support Partners as well as Patient and Community Engagement Research (PACER) group for contributing to the success of this initiative.

**2014-15 FISCAL YEAR**

‘GOOD CATCHES’ IN 4% OF CASES assessed, suggesting that more than 10,000 ERRORS LIKELY TO BE AVERTED because of SSC in Alberta each year

**SITE SPECIFIC MONTHLY ACTION PLANS**

Addressing each site’s unique challenges

**ITERATIVE LEARNING**

Leads to more effective QUALITY IMPROVEMENT

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**January 2013**

Use of the checklist is inconsistent, rate of cases where tool is in use at LESS THAN 50% Surgery SCN begins a project to increase use of the checklist.

**December 2014**

Use of the checklist is OVER 90% and has remained steady at this level

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**POSITIVE REINFORCEMENT**

Reporting ‘GOOD CATCHES’ motivates HIGH COMPLIANCE Circulating reports of potential mistakes avoided by use of the checklist shows the importance and value of the tool

**SHARED REPORTS TO ALL LEVELS**

- frontline care providers
- hospital administrators
- AHS executive

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**Alberta Health Services**
SURGERY STRATEGIC CLINICAL NETWORK
ADULT CODING ACCESS TARGETS FOR SURGERY (aCATS)
Measuring Access to Elective Surgery

Getting the Right Patient into the Right Surgery at the Right Time

Spread
Ensuring consistent provincial elective surgical wait time measurement

Optimize
Ensuring elective surgical access is utilized appropriately and efficiently across the province

Sustain
Ensuring consistent surgical processes now and into the future

BUILDING CAPACITY
For supporting measurement of surgical wait times within local sites and across the province.

TRAINING KITS
Online and paper

STAKEHOLDER
Teaching and engagement sessions

IMPLEMENTED AT
32 SITES ACCOUNTING FOR 92% OF SURGICAL ACTIVITY

151,000+
aCATS CODING SURGERIES IN 2014-15

900 OFFICE STAFF
855 SURGEONS

INCREASE TIMELY AND ACCURATE DATA INPUT

ENHANCE REPORTING CAPABILITY

IMPROVEMENT OF SURGEON ENGAGEMENT

aCATS IS PART OF THE CONVERSATION ABOUT SURGICAL WAITLISTS

SURGEON ADVISORY GROUP (SAG)

VARIETY OF SURGICAL SERVICES

IMPLEMENTED ACROSS ALBERTA

11 SURGEONS

STANDARDIZED WAITLIST INFORMATION FOR ADULT SCHEDULED SURGERY IN ALBERTA

DATA ON COMPLETED CASES AND WAITLISTED PATIENTS ORGANIZED BY SURGEON, SERVICE AND SITE

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The adult Coding Access Targets for Surgery project (aCATS) is a key initiative of the AHS Surgery Strategic Clinical Network.

aCATS is an Alberta-developed, standardized coding system to help prioritize scheduled surgeries offered at facilities throughout the province, depending on a patient’s diagnosis and level of urgency.

Alberta Health Services
Enhanced Recovery After Surgery (ERAS) patients return to home, family, work and play 2.3 days sooner.

**Health System Benefits**
- Cost savings
- Increased quality
- Greater bed capacity
- 3024 days of bed capacity given back to the system
- $3.6–$8.0 million saved in first 21 months

**Eras Patients**
- Patients say ERAS nurses are caring and help them recover faster.
- Clinicians state they choose ERAS for their family members.

**How We Did It**
- Province-wide collaboration
- Local innovation and learning
- Grassroots-driven changes
- Teams led by local clinicians
- Continuous quality improvement
- Evidence-based practices
- Internationally researched
- Tested and proven

**Before Surgery**
- Health activities to promote recovery
- Minimally invasive techniques
- Lower surgical stress
- Drink juice 3 hours before surgery
- Education to empower patients and families

**During Surgery**
- Better pain control
- Minimally invasive techniques
- Lower surgical stress
- Research and innovation

**After Surgery**
- Returning to normal sooner
- No lines, drains, early removal of intravenous catheters
- Better outcomes
- Through eating, drinking, pain-coping, moving, walking
- Less pain and nausea
- 11% fewer complications, such as surgical wound infections
- Going home at the 5-day benchmarks
- Less re-admissions
- Partnership between patient and unit team

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The Enhanced Recovery Pathways After Surgery program (ERAS) is a key initiative of the AHS Surgery Strategic Clinical Network.

ERAS provides consistent ways of managing care before, during and after surgery with an aim of helping patients stay strong physically and mentally, improving recovery time and reducing complications.
The American College of Surgeons’ National Surgical Quality Improvement Program (NSQIP®)

In Alberta, the use of NSQIP® is associated with:

- an enhanced quality improvement culture
- a reduction in surgical complications
- a reduction in costs associated with surgical complications
- $3 million invested, $11 million combined savings (cumulative cost & savings based on past 3 years)

Now expanding to all 16 big hospitals in Alberta
Advocate.
What about Research?
From the 2012 AHS Primer on SCNs

“Each SCN will have a specific mandate to develop a **focused provincial research program** in collaboration with academic partners, and a mandate to create new knowledge and translate it into measurably improved health and health care for Albertans. This will involve developing **health research capacity** and **executing prioritized applied clinical research**; health services, systems and policy research; and/or population and public health research in selected sub-populations of interest within each SCN.”
From the Surgery SCN Transformational Roadmap

“The research that we support will be focused on health systems improvement and innovation which translates knowledge to maximize impact on patient care outcomes. We will develop a formal research and innovation strategy that describes how our community will manage innovation from initial idea to evaluation and operationalization.”

Surgery Strategic Clinical Network Research strategy
June 2018

Key Principle

The research the Surgery SCN supports will be focused on improvement, innovation and knowledge translation which achieves patient impact, and will be directly linked to one of the key strategic objectives laid out in the Surgery SCN 2018-2021 Transformational Roadmap:

1. we will improve Access to Integrated Surgical Care
2. we will provide Safe, High-Quality Surgery
3. we will build a Strong Surgical Community
4. we will use Analytics and Evidence to Guide Decisions
1. Improving access to integrated surgical care
2. Providing safe, high-quality surgical care
3. Building a strong surgical community
4. Using analytics and evidence to guide decisions
1. Developing health research capacity
2. Executing prioritized research in the following areas:
   a. applied clinical research
   b. health services, systems and policy research
   c. population and public health research
3. Proactive dissemination of research findings with rapid uptake, including peer-reviewed publication of results, is one of the major expected outputs of all AHS research. Other measurable research outputs:
   • creating new knowledge
   • creating research capacity
   • informing decision-making
   • providing health benefits
   • improving health system effectiveness and efficiency
   • broader economic and social benefits
<table>
<thead>
<tr>
<th>Activity</th>
<th>Developing health research capacity</th>
<th>Executing prioritized research</th>
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<tr>
<td>Grant writing workshops</td>
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<td>Letters of support</td>
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<td>Supporting researchers to develop PRIHS-4 applications</td>
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Alignment with our partners

The Government of Alberta has highlighted the following priorities which are relevant to our work in the Alberta Research and Innovation Action Plan 2017-2020:

- Health data
- Quality
- Innovation

Alberta Health Services has highlighted the following priorities which are relevant to our work in the AHS Strategy for Clinical Health Research, Innovation and Analytics 2015-2020

- Partnerships
- Liberation of data
- Service excellence
- Value to Albertans
- Applying and spreading knowledge
1. Continue to provide research support for the work described in the transformational roadmap (access, quality/safety, community, analytics) including dissemination of research outputs.

2. Form a Surgery SCN Research Advisory Subcommittee to assist the Scientific Director with implementation of this strategy.

3. Build a provincial surgical research network: meet with our partners, discuss their priorities
   • Campus Alberta institutions
   • O’Brien Institute of Public Health
   • Alberta Institute of Health Economics
   • U of A School of Public Health: Center for Health System Improvement
   • Northern Alberta Clinical Trials and Research Center
   • AIHS Strategy for Patient Oriented Research (SPOR) units
   • TEC Edmonton
   • Research teams in other SCNs

• SCN scientific team to attend Research Day at both U of A and U of C in 2019, and subsequently host a provincial surgical research day.
4. Secure a 2019 CIHR Health System Impact Fellowship, in collaboration with our partners.

5. Develop a plan to leverage emerging systems integrating research and care delivery
   - Connect Care eg. Cogito, Slicer-Dicer, synoptic reporting, ACATS
   - NSQIP & ERAS: eg. risk calculators, outcomes, process compliance, patient reported outcomes

6. Review the effectiveness of Seed Grants and summer studentships 2013-2018 in building capacity and executing prioritized research
   - Applicants: location, career stage
   - Projects: CIHR pillars
   - Resources provided
   - Execution of prioritized research: projects completed
   - Measurable research outputs
What will the next 5 years look like?

2018-2023
5. Develop a plan to leverage emerging systems integrating research and care delivery
   - Connect Care eg. Cogito, Slicer-Dicer, synoptic reporting, ACATS
   - NSQIP & ERAS: eg. risk calculators, outcomes, process compliance, patient reported outcomes
Multiple initiatives on surgical access & quality

NSQIP

Provincial Surgical Analytics

Connect Care
We want Alberta’s surgical community to have a strong culture of accountability, improvement and innovation. It is our role to help the community work together to identify and solve problems impacting patient care, and to share and spread best practices across the province. We will begin this work by visiting hospital sites in person, and by bringing our community together at an annual Alberta Surgical Forum.