Clinical Research Seminar Series
January 26, 2017

SPOR Platform Discussion
Presented by: Drs. Finlay McAlister, Ross Tsuyuki, Lisa Hartling

Three Alberta Strategy for Patient-Oriented Research (SPOR) Unit Platform leads from the Data (Dr. Finlay McAlister), Consultation & Research Services (Dr. Ross Tsuyuki), and Knowledge Translation Platforms (Dr. Lisa Hartling) will be presenting on what SPOR can do for clinical and health services researchers at the University of Alberta.

Questions?
Dr. Jill Byrne (Director, Clinical Research, FoMD)
jill.byrne@ualberta.ca

I Do Clinical/Health Services Research, What Can ABSPORU Do For Me?
Finlay A. McAlister, MD MSc
On behalf of the ABSPORU Data Platform
Ross T. Tsuyuki, PharmD MSc
On behalf of the ABSPORU Consultation and Research Services Platform
Lisa Hartling, PhD
On behalf of the ABSPORU KT Platform

What is the Alberta SPOR SUPPORT Unit?
• The ABSPORU is a five year $48 million federal-provincial partnership between AIHS and CIHR (2015-2020).
• We are part of a network of SPOR (Strategy for Patient-Oriented Research) SUPPORT (Support for People and Patient-Oriented Research and Trials) Unit across Canada.
Our Vision and Goal

- **Vision**: Advance knowledge to improve patient health and health care.
- **Goal**: Increase the quantity and quality of patient-oriented health research.

Our Partners

- The Alberta SPOR SUPPORT Unit partners with:
  - Alberta Health
  - Alberta Innovates – Health Solutions
  - Alberta Health Services
  - Athabasca University
  - University of Alberta
  - University of Calgary
  - University of Lethbridge

Alberta SPOR SUPPORT Unit

- Five platforms provide direct services to researchers.
- Two platforms, Career Development and Pragmatic Clinical Trials, help build capacity in Alberta’s research community by providing a number of career development and training opportunities.
What does the ABSPORU Data Platform offer?

- Support Services for Research Involving secondary analysis of existing Large Datasets (especially, but not limited to, administrative data):
  - Research Design: methods, sample size, biostatistical plan, support letters for grants, assistance with Researcher Agreements
  - Data Management: data extraction, linkage, and cleaning
  - Biostatistics: consultations and/or analyses (if necessary, and in conjunction with Methods Support platform)
  - Training (in conjunction with Training and Methods Support platforms): emphasis on practicums, theses.

But Not

- Incubation/development of research questions and choice of study methods (primary vs. secondary data sources, RCT vs. cohort, etc)
- Support for primary data collection studies
- Consultation and Research Services Platform

37 databases as of October 2016
25 pages of info on datasets in the AHSDRR

- Inpatient - Discharge Abstract Database (DAD)
  - Available from: April 1, 2002 to current
  - Data refresh occurrence: Monthly

- Laboratory (Lab R1 and R1.1)
  - Available from: LabFusion: Jan 1, 2009 to current; Meditech: Jan 1, 2009 to current; Millennium: Apr 1, 2012 to current; Sunquest: Apr 1, 2012 to current.
  - Data refresh occurrence: Daily (with up to 8 days latency)

- Provincial Registry
  - Data refresh occurrence: Annually

- NACRS
  - Available from: Apr 1, 2010 to current
  - Data refresh occurrence: Monthly

Resources

- Infrastructure support:
  - DIMR: biostatisticians and data managers/analysts
  - Computers, stats software, CPE funds

- NOT OPERATIONAL FUNDS, NOR MATCHING FUNDS

The AHSDRR and where does ABSPORU Data Platform fit?

How to access services: www.absoru.ca
Criteria

- Eligibility Criteria
  - AB/NWT PI, AB setting and investigator
  - HREB approval
    • For obtaining data

- Selection Criteria
  - Patient-oriented or health system-oriented outcomes
  - End-user engagement
  - Feasibility
  - Likelihood of Significant Patient/System Impact

Data Platform Activities as of fall, 2016

- Research
  - ER, card, pulm, nephro, family med, surgery
- Data Management: 66/75 requests for cohorts completed thus far (median time to completion 4 weeks)
  - ICU, pharmacy, CV surgery, community health, ER, geriatrics, pediatrics, surgery, card, GIM, bone and joint
- Data linkage: 20/24 external cohorts linked
- Statistical Analysis: 27/30 cohorts analyzed
  - GIM, card, ICU, bone and joint, community health, surgery
  - one collaborative project with Ontario ICES data (HOMR score)
Who has requested assistance?

- 47 uni researchers
- 14 students (masters, doctoral)
- 5 post-docs
- 47 health system practitioners (includes SCNs)

Overall: 45% UofA, 44% UofC, 11% AHS
Application form

– Study information

Application form

– Required support from ABSPORU

Application form

– Platform services

11 Patient-Oriented Research (POR)

POR refers to a continuum of research that engages patients as partners, focuses on patient-identified priorities and improves patient outcomes. This research, conducted by multidisciplinary teams in partnership with relevant stakeholders, aims to apply the knowledge generated to improve healthcare systems and practices.

Please indicate which aspect of POR your research applies to (select all that apply):

- Engages patients as partners
- Focuses on unmet identified needs
- Seeks support from the Patient Engagement Platform (please provide further details in Section 13)

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Support Requested from the Albert SPOR SUPPORT Unit

For assistance with patient engagement

<table>
<thead>
<tr>
<th>Patient Engagement Platform</th>
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<tbody>
<tr>
<td>Project Refinement &amp; Feasibility</td>
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<tr>
<td>- Reading list about Patient Engagement in research</td>
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<tr>
<td>- Advice on general plan for Patient Engagement</td>
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<td>- Advice about Patient Partners in:</td>
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<tr>
<td>Advice regarding evaluating Patient Engagement efforts</td>
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<td>- Grant review</td>
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<thead>
<tr>
<th>Project Services</th>
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<tbody>
<tr>
<td>- Priority-setting advice</td>
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<tr>
<td>- Publicizing/inhibiting/investing</td>
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<td>- Facilitation</td>
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<td>- Evaluation</td>
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<td>- Education/Training</td>
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<td>- Governance</td>
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<td>- PE tools</td>
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Application form

For projects involving large secondary datasets

**Methods Support & Development Platform**

<table>
<thead>
<tr>
<th>Project Refinement &amp; Feasibility</th>
<th>Project Services</th>
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</thead>
<tbody>
<tr>
<td>Discussion of data possibilities</td>
<td>Methods support</td>
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<tr>
<td>Identification of variables</td>
<td>Risk adjustment</td>
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<tr>
<td>Identification of data sources</td>
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<td>Advice on development of innovative methods</td>
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<td>Advice on data collection methods</td>
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<td>Protocol development</td>
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<td>ICD coding algorithms</td>
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<td>Risk adjustment methodology</td>
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**Data Platform** (for examination of publicly held datasets such as AHM DMR data holdings)

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<tr>
<th>Project Refinement &amp; Feasibility</th>
<th>Project Services</th>
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</thead>
<tbody>
<tr>
<td>Identification of a cohort of patients</td>
<td>Data procurement</td>
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<td>Information on database and variable time periods</td>
<td>Data cleaning</td>
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<td>Identification of data sources</td>
<td>Linking and merging of data</td>
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<td>Development of biostatistical plans for analysis</td>
<td>Generation of control groups</td>
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<td>Information on repository owners and access protocols</td>
<td>Analysis and dissemination of study results</td>
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<td>Cardiovascular activities</td>
<td>Outcomes modelling</td>
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<tr>
<td>Running pilot test data</td>
<td>Data visualization</td>
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<td>Data release agreements</td>
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**Consultation & Research Services Platform**

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<th>Prospective Studies</th>
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<tr>
<td>Primary Data Collection Qualitative and Quantitative</td>
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**Design/Method**
- Research question refinement
- Project design
- Method consultations
- Grant review

**Data Management**
- Development of case report form
- Database development and maintenance
- Randomization
- Quality assurance

**Biostatistics**
- Development of analytical plans
- Sample size calculation
- Statistical analysis
- Clinical event adjudication

Contact: yazid.alhamarneh@ualberta.ca
CRS activities to date

- Launched November 2015
- 24 pre-consults
  - 10 led to portal applications
  - 14 active pre-consults
- Services requested
  - 93% Design/Methods
  - 21% Analytical plan preparation
  - 7% Sample size calculation

Portal applications

- Applicants are students, residents, postdocs, nurses, clinicians, professors
- 33% were early career researchers
- 7% were new to Alberta

Application sources

- U of A
- U of C
- AHS
- Covenant Health
- Edmonton Seniors Centre
- U of L
- PCN
- Institute for Health Economics
- Tom Baker Cancer Centre

Services requested

- Design/Method
- Statistical analysis
- Database creation and maintenance
- Analytical plan
- IDA
- Sample size calculation
- CRF
- Randomization
- Clinical event adjudication
- Qualitative
Knowledge Translation (KT) Platform

Our long-term vision for Alberta SPOR KT Platform is increased capacity in the Alberta health care research environment for effective, evidence-based work in KT and integration of KT into patient-oriented research (POR) activities.

Knowledge Translation

- A dynamic and iterative process that includes the synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the healthcare system.
- This process takes place within a complex system of interactions between researchers and knowledge users which may vary in intensity, complexity and level of engagement depending on the nature of the research and the findings as well as the needs of the particular knowledge user (Graham, 2010).

CIHR definition [www.cihr-irsc.gc.ca/e/29418.html]

KT Platform: Scope

- We offer consultation, support and training in:
  - Knowledge synthesis (KS)
  - Knowledge translation (KT)
  - Implementation science (IS)
- We work with researchers across Alberta who require assistance with their patient-oriented research projects.
KT Platform: Rationale

• Our plan was developed based on an extensive needs assessment with members of the community we serve, across the province and all stakeholder organizations

KT Platform: Rationale

• Needs:
  – Training and professional development
  – Consultations
  – KT expertise and technical support
  – Means to develop and implement KT interventions
  – Community of practice
  – Timely and targeted knowledge syntheses
  – Common language and understanding

KT Platform: Critical activities

• 3C Model:
  – Consultation services
  – Community of practice
  – Capacity Building

KT Platform: Critical activities

• Consultation services
  – Responding to applications submitted through the Research Alberta portal that are:
    • Focused on work in KS/KT/IS
    • POR projects where support is needed to develop integrated or end-of-project KT plans
KT Platform: Critical activities

• Community of practice
  – A community of practice model being used to build linkages and networks among Alberta researchers interested in KS/KT/IS research or integrating these concepts into their POR.

KT Platform: Critical activities

• Capacity building
  – Training and professional development activities, including dedicated working groups, to:
    • Increase researchers’ awareness of KS/KT/IS science
    • Develop researchers’ abilities and capacity to move KS/KT/IS science forward
    • Embed KS/KT/IS considerations in POR

KT Platform Services

Administrative Director
Denise Thomson, MA, MBA

KS Consultations
Meghan Sebastianski, PhD

KT & IS Consultations
Gabrielle Zimmermann, PhD

Application form

For assistance with knowledge translation, synthesis & implementation science

Knowledge Translation Platform

Project Refinement & Feasibility
Knowledge Synthesis
- Literature searching
- Systematic reviews
- Rapid reviews
- Scoping reviews
- Practice guidelines
- Critical appraisal

Knowledge Translation (KT) & Implementation Science
- Integrated Knowledge Translation (KT)
- End of Grant/Project KT
- KT Implementation Strategies

Project Services
Knowledge Synthesis
- Literature searching
- Statistics (Meta-analysis)
- Systematic reviews
- Rapid reviews
- Scoping reviews
- Practice guidelines
- Critical appraisal
- Mentoring
- Grant Review

Knowledge Translation (KT) & Implementation Science
- Integrated Knowledge Translation (KT)
- End of Grant/Project KT
- KT Implementation Strategies
- Stakeholder management
- Mentoring
- Grant Review
For More Information

• Email spor@albertainnovates.ca
• Or visit absporu.ca