



CLINICAL RESEARCH UNIT:
SUPPORTING RESEARCHERS
WITH END-TO-END RESEARCH
DATA SERVICES

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Better Data Better Research



OUR MISSION

To simplify and demystify end-to-end research data processes from collection to analysis to translation by maximizing the potential of electronic data capture tools, co-developing innovative custom platforms, and offering sophisticated and specialized data services.

CRU supports the U of C strategic pillar to Become Leaders in Research.

CRU launched in 2007 and was designated a faculty-wide core resource for the Cumming School of Medicine in 2013.

CRU SERVICE OFFERING

ELECTRONIC DATA CAPTURE AND MANAGEMENT

Access and capacity building tools for data capture, databases, and data management



Self-service

CRU-Supported Clinical Trials

CUSTOM SOFTWARE PLATFORMS

Create innovative solutions for research workflows that are tailor-made for the project's unique needs



CRU-built products

Project-specific custom platforms

METHODS AND ANALYTICS

Statistical support and methodology for clinical trials and observational studies

Data linkage

Data cleaning & analysis



Specialized technical project management expertise for end-to-end project support, including meeting Tri-Council Research Data Management Requirements

The CRU provides services on a cost recovery basis and charges service fees.

THE CRU OFFERS A VALIDATED REDCAP 13 INSTANCE

- Meets Health Canada/ICH GCP requirements to run regulatory clinical trials
- REDCap's interface is simple to use and familiar to many researchers
- Development on REDCap is more cost-effective than other EDC tools

We also offer:

- Validated **external modules** (e.g., auto-scheduling, auto-populate fields)
- MyCap patient portal
- An eConsent framework
- CRU-built supplementary tools (DataXplor) to improve data quality

Service Showcase: Methods and Analytics

Novel Stroke Treatment

Project Provider Continuity

Travel Distance and Patient Outcomes

Research Area

Alternative treatment and drug modalities for stroke treatment

Investigate role of primary care providers in care continuity for chronic diseases

Cohort extraction from administrative

dataset, implementing disease case

definitions, generating novel metrics

Statistical analysis: Multivariable zero-

Impact of travel distance on outcomes for patients needing sub-specialty care

CRU Support

- Data Linkage: Registries, clinical study portal, CIHI administrative data
- Data cleaning
- DSMC interim analysis and statistical analysis

Successful publication, others in progress

regressions

inflated negative binomial

Findings: Patients supported by primary care in the community have significantly reduced rates of ED visits and hospitalizations.

 Statistical analysis: Multivariable survival analysis

Successful publication, viewed 600+times

Findings: Longer travel distance to subspecialty clinics had higher risk of death, raising equity considerations

Outcomes

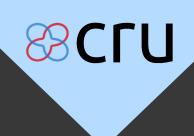
Publication in high impact journal (ranked 2nd among 830 general medicine journals)

GET IN TOUCH!









THANKS!

We look forward to collaborating!

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CRU IN THE RESEARCH ECOSYSTEM



CENTRE FOR HEALTH INFORMATICS

Data access and **analysis** of **secondary data** *Example: AHS administrative data*



- Support primary data collection via EDC tools and health registry platforms, including validated systems for regulatory studies
- Software development capabilities to build custom platforms
- Provide statistical and methods support



Calgary Centre for Clinical Research

- Support services for administrative, financial, and operational research processes, including industry-led studies
- OnCore CTMS supports clinical trial processes, but does not provide EDC capabilities



Research and beta test site for **research design** *Examples: simulate clinical environments, human factors like usability and user experience*



Research Computing Services

High performance computing capabilities for advanced computational problems