



Neurocritical Care Strategic Plan 2020 - 2025

Department of Critical Care Medicine

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Neurocritical care helps patients with life threatening nervous system disorders. Studies show neurocritical care reduces mortality and improves outcomes.^{1,2} Individualized, evidence-based, comprehensive care of these unique and often complex patients and their families requires an expert multidisciplinary team equipped with necessary resources.

VISION

Exceptional, comprehensive patient and family centered neurocritical care

MISSION

Advance neurocritical care through clinical, education and research excellence

GUIDING PRINCIPLES

Medical Expertise	Innovative, evidence-based, individualized, safe, patient-centered neurocritical care
Collaboration	Multidisciplinary teamwork is evident in our clinical care, education and research
Communication	Supportive relationships with exchange of essential information for effective care
Health Advocacy	Advocate for patients and provide accurate assessments of neurologic prognosis
Leadership	Advance neurocritical care locally, nationally and globally

1. Kramer AH, Zygun DA. Declining mortality in neurocritical care patients: a cohort study in Southern Alberta over eleven years. *Can J Anesth.* 2013; 60: 966-975.

2. Kramer AH, Zygun DA. Neurocritical care: why does it make a difference? *Curr Opin Crit Care.* 2014; 20: 174-181.

Focus Area:
CLINICAL CARE

Goal:

Accessible and exceptional neurocritical care to optimize patient outcomes and enhance quality of life.

Objective 1:

Increase accessibility to neurocritical care consultations within central and southern Alberta.

Activities:

1. Recruit additional neurointensivist(s).
2. Formalize consistent and collaborative neurocritical care rounds.
3. Expand consultative services within Calgary.
4. Develop accessible referral service for central and southern Alberta.

Objective 2:

Personalized evidence-based neurocritical care.

Activities:

1. Establish neurocritical care protocols and collaborate with stakeholders to maximize compliance.
2. Update neuromonitoring equipment.
3. Continuous quality improvement.

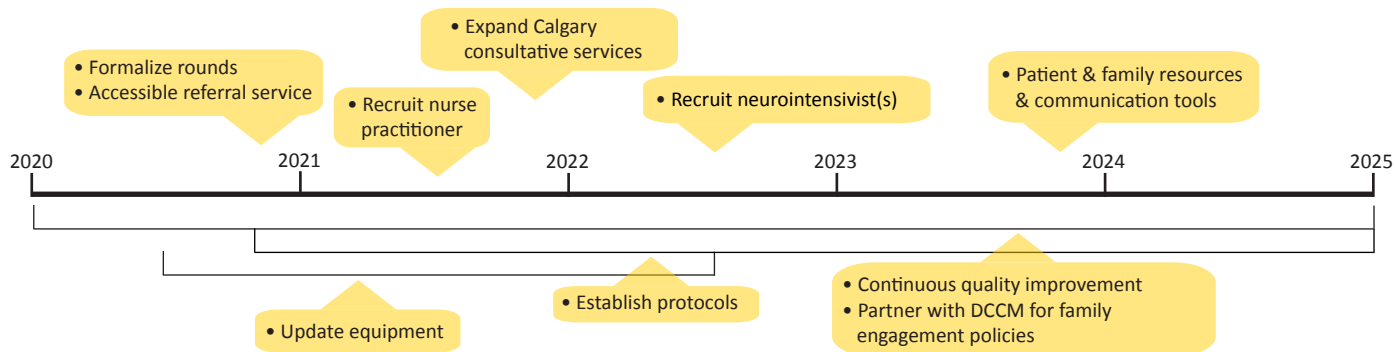
Objective 3:

Enhance patient and family experience of neurocritical care.

Activities:

1. Create patient and family resources and communication tools.
2. Partner with DCCM regarding family engagement policies.
3. Recruit nurse practitioner to facilitate continuity of care.

Activity Targets:



Focus Area:
RESEARCH

Goal:

Neurocritical care innovations and patient-centered research integrated into the delivery of care and educational initiatives.

Objective 1:

Develop infrastructure to collect prospective comprehensive data including patient-centered outcomes to inform quality improvement and research.

Activities:

1. Partner with DCCM in research fund development strategy.
2. Increase administrative and research support to optimize prospective data collection including long term patient outcomes.
3. Utilize data to guide quality improvement and multidisciplinary research.

Objective 2:

Integrate novel multimodal neuromonitoring into bedside care and develop strategies to minimize secondary neurologic insults.

Activities:

1. Partner with DCCM to fundraise for equipment purchases.
2. Familiarize ICU team with multimodal neurologic assessments.
3. Use multimodal monitoring to increase understanding of pathophysiology, prevention and management of secondary brain injury.

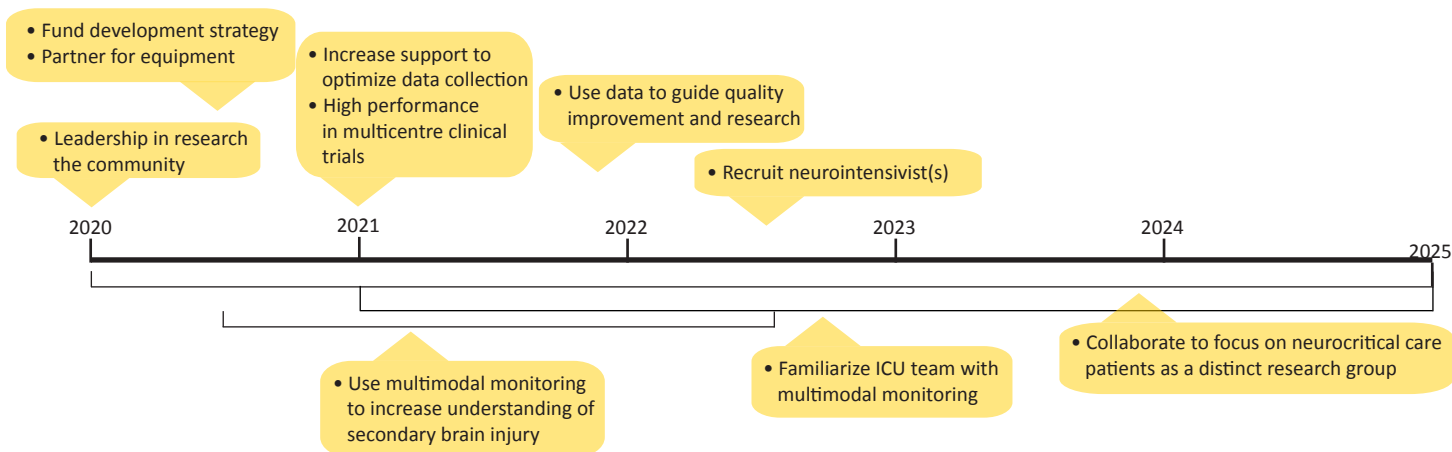
Objective 3:

All neurocritical care patients and families are given the option of participating in research studies.

Activities:

1. Leadership and partnership in the Canadian neurocritical care research community, including high performance in multicentre trials.
2. Recruit neurocritical clinician-scientist(s) with expertise in multimodal monitoring.
3. Collaborate with members of the DCCM and external departments to focus on neurocritical care patients as a distinct subgroup of broader initiatives.

Activity Targets:



Focus Area:
EDUCATION

Goal:

Train the future generations of neurocritical care providers.

Objective 1:

Create an accredited, sustainable, comprehensive and competency based neurocritical care training program.

Objective 2:

Create accessible, applicable and effective educational resources for all health care providers.

Activities:

1. Complete local general assessment.
2. Develop proposal for obtaining buy-in, funding and accreditation.
3. Obtain United Council of Neurologic Subspecialties (UCNS) certifications.
4. Complete national targeted needs assessment.
5. Identify stakeholders and obtain buy in and input.
6. Construct clinical and academic curriculum.
7. Obtain program funding.
8. Obtain accreditation from a certifying organization.
9. Launch fellowship program.

Activities:

1. Develop curriculum for ICU medical students and residents.
2. Develop critical care app.
3. Develop, validate and implement EEG curriculum for nurses and physicians to facilitate seizure detection.
4. Develop education resources and initiate education days for clinical team members.

Activity Targets:

