Neurocritical Care
Strategic Plan 2020 - 2025

Neurocritical care helps patients with life threatening nervous system disorders. Studies show neurocritical care reduces mortality and improves outcomes.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

**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.
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:

- Fund development strategy
- Partner for equipment
- Leadership in research the community
- Increase support to optimize data collection
- High performance in multicentre clinical trials
- Use data to guide quality improvement and research
- Recruit neurointensivist(s)
- Use multimodal monitoring to increase understanding of secondary brain injury
- Familiarize ICU team with multimodal monitoring
- Collaborate to focus on neurocritical care patients as a distinct research group
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.

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.
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.

Activity Targets:
- Complete local general assessment
- Develop proposal
- Obtain (UCNS) certifications
- Launch Fellowship
- Complete International targeted needs assessment
- Identify & obtain buy in and input from stakeholders
- Develop NCC curriculum for medical students & resident rotators
- Develop CC app
- Develop, validate, & implement EEG curriculum for RN's & MD's
- Construct clinical and academic curriculum
- Obtain funding
- Develop neurocritical care education resources & initiate education days for clinical team members

Objective 2:
Create accessible, applicable and effective educational resources for all health care providers.

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.