

# 49<sup>th</sup> Annual CANN Scientific Sessions: June 2018

## Presentation Abstracts

Monday, June 25<sup>th</sup>

### **Nova Scotia Health Authority Delirium in the ICU: A Multifaceted/Multidisciplinary Approach to Prevention and Treatment**

**Giselle Davis, Elinor Kelly, Tara Mercier**

The medical/surgical/neurosurgical intensive care unit is a twelve bed ICU located at the Halifax Infirmary site. We accept patients from all over the Atlantic Provinces needing specialized services. We are the major accepting unit for neurosurgery patients requiring intensive care. We are the primary teaching hospital east of Montreal. Our patients have a wide range of complexity and acuity.

Starting in the fall of 2011 and continuing, our unit and our sister ICU implemented an Early Mobility Project. While planning the education for the implementation of this project it became apparent by our Quality Lead Nurse that delirium was an undertreated and undiagnosed problem in our ICU's. Since at least eighty percent of ventilated patients experience delirium we realized we were not identifying especially in our neurosurgery population patients with this condition.

We will present in our presentation how the ICU team started the process to tackle delirium and make it a priority for our quality initiatives. We will explain how the team identified delirium, documented delirium and coordinated a multidisplinary/multifaceted approach to delirium. This is a presentation intended for all participants and will last thirty-sixty minutes as needed by the committee.

## Concurrent Presentations

### **Communication Barrier: Blood Transfusion Reaction?**

**Andrea Cole-Haskayne**

**Kathleen Holstein**

**Shauna Brady**

Being aware of potential reactions to blood transfusions is imperative. Communication with the client about potential risks and reactions to blood products is crucial. This is challenging when the client has had a stroke and has profound expressive aphasia. In this presentation we will describe signs and symptoms which could represent a reaction as well as communication strategies to use.

Our client was admitted for rehabilitation post stroke. He had profound fatigue and was found to have low hemoglobin. After discussion with the Physician, the client consented to receive red blood cells and had previous transfusions with no reactions.

Within minutes of the start of the transfusion, the client exhibited signs of distress and mild pyrexia. Because of his expressive aphasia, he was only able to say few words. The nurses used supportive conversation techniques to ascertain the nature of the client's distress and determine if he was experiencing a possible transfusion reaction.

The ability to communicate effectively with clients who have experienced a stroke and are expressively dysphasic is always important, especially in circumstances where a life threatening situation is occurring. Having useful nursing strategies is important for improving communication, client satisfaction and clinical outcomes.

**Intended Level of Audience:** All participants

**Subspecialty:** Neurology

### **Launching a neuropalliative care programme: Experiences from the Montreal Neurological Hospital**

**Justine Gauthier RN MSc,  
Marianne Sofronas, MA, RN, MSc(A), CNN(C), CCN(C), PhD(s)**

Patients with end-stage neurologic diagnoses struggle with unique physical and psychosocial health concerns at the end of life, compounded by devastating changes in cognition, speech, and motor function. Palliative care in the neurological setting attempts to address these concerns, recognizing that patient needs differ significantly from traditional palliative care models, which are based on the experiences of dying cancer patients. In 2016, the Montreal Neurological Hospital launched a neuropalliative care service, with a nurse as the frontline practitioner. This presentation will review the literature on neuropalliative care, in order to better delineate the unique palliative care needs of patients with end-stage neurologic diagnoses. From there, we will share experiences in implementing a neuropalliative care service in an urban, university-affiliated, tertiary care hospital. Clinical challenges, barriers and facilitating factors will be discussed through case studies. We will conclude with implications for nursing practice and research.

Intended level of audience: All participants

Intended subspecialty: palliative care, neurology, neurosurgery

### **Its more than the Lungs: Respiratory Assessment and Management in Neuromuscular Diseases: A case study approach**

**Co-presenters -Wilma Koopman, NP and Lynda Ryall-Henke, RN**

In the acute care setting, nurses are often the first responders to changes in patient's respiratory status. The assessment and management of neuromuscular respiratory failure is distinctive and requires specialized knowledge and skills beyond standard nursing education. A targeted neuromuscular respiratory assessment resulting in specific management strategies is not part of nurses' training.

Common neuromuscular conditions such as Guillain Barre Syndrome (GBS), Muscular Dystrophies, Amyotrophic Lateral Sclerosis (ALS) or Myasthenia Gravis (MG) present or progress featuring atypical respiratory symptoms. These include progressive morning headaches and confusion, weight loss, speech fatigue and inability to sleep supine. Given that shortness of breath may not be the presenting complaint; a respiratory assessment that includes a focus on diaphragmatic function may be missed or overlooked. Management of neuromuscular respiratory compromise is also unique. By using a case study format and demonstration this presentation will address the following objectives:

1. Review the anatomy and physiology of normal respiratory function.
2. Describe the assessment of respiratory function in neuromuscular diseases.
3. Apply the nuances of a neuromuscular focused respiratory assessment and its management in case studies of individuals with Neuronopathies (eg ALS), peripheral neuropathies (eg GBS), muscle diseases (eg Duchene Muscular Dystrophy (DMD)), and a neuromuscular junction disorder (MG).

a) Intended Audience- Mid level to advanced

b) Speciality Neurology (Neuromuscular)

## Concurrent Presentations

**Evaluation of a practice change of early administration of low dose anticoagulation therapy for venous thromboembolism prophylaxis after spontaneous intracerebral hemorrhage**

**Breeda O'Farrell NP (presenter), Kim Hesser RN, Richard Chan MD FRCP(c) , Andrew Leung MD FRCP(c)**

**Mel Boulton MD FRCS(c)**

Deep vein thrombosis (DVT) and pulmonary embolus (PE) are common and life-threatening complications after spontaneous intracerebral hemorrhage (ICH). There are no randomized control trials, nor is there consensus regarding the prophylactic use of low molecular weight heparin (LMWH) or unfractionated heparin (UFH) for DVT prophylaxis in intracerebral hemorrhage. Some studies have demonstrated that the initiation of UFH at 48 hours or LMWH at 24 hours post ICH onset for VTE prophylaxis was not associated with an increase in hematoma size. The American Guidelines for the management of Spontaneous ICH recommendations include consideration of UFH or LMWH for VTE prophylaxis in patients with lack of mobility after 1 – 4 days from onset of ICH.

Prior to 2011, the practice at University Hospital was to start LMWH at 48 hours post-ICH, however since earlier initiation at 24 hours appeared safe in select patients, a practice change occurred. The purpose of this study was to evaluate the practice change by analyzing the safety of early administration of low molecular weight heparin (LMWH) or unfractionated heparin (UFH) for DVT prophylaxis in patients with spontaneous ICH with regard to hematoma growth. These results will be presented.

Audience: All participants

Intended Subspecialty: Stroke, Neurosurgery

### **Medical Assistance in Dying and Organ Donation**

**Lisa Gillis Rochon R.N**

The supply for organs falls far short of the demand for transplant recipients.

A new dimension in delivering quality end of life care to Medical Assistance in Dying (MAiD) patients is organ donation. By choosing organ donation the MAiD patient can create a legacy of life. This is an emerging topic that may provide an opportunity to a large spectrum of frontline healthcare professionals to advocate for their patient. This presentation will examine the role of the nurse, what type of patient can qualify for MAiD and Organ Donation and the current best practice process. A case scenario will be discussed. Ethical controversies related to MAiD and organ donation will be explored.

### **Analyzing Methods of Communication in Patient Care Transfer**

**Bella To RN BSc BScN**

**HANHMI HUYNH RN BSc BScN**

Communication between healthcare providers is essential for effective handover of patient care. Within the Neurosciences program at the University of Alberta Hospital, there is a high turnover of patients between units to accommodate their acute needs under specialized services, such as critical care, neurosurgery and neurology. As such, a standardized system in transfer of patient information is necessary for effective continuous care, involving nurses, allied health, patients and their families. In this presentation, we will outline and discuss the strategies used in our program, how they have evolved over time, as well as challenges that we have encountered. These strategies include: Medworxx, verbal patient handover, and bedside shift reports. A decrease in medical and clinical errors and hospital length of stay and an increase in patient/family satisfaction are all impacted by the quality of the information being transferred. This session will serve to educate all nurses working in an in-patient neuroscience program.

### **Navigating the Nasogastric (NG) Gamut: A clinical best practice review of assessment and placement confirmation of NG tubes**

**Errol Isaac RN, BScN CNN(c), Andrew Kwan RN, BScN CNN(c) and Nadine Moniz RN, BScN, MN**

A method to confirm NG tube placement that is accurate, affordable and clinically realistic is challenging in the Neuroscience patient population. Patient agitation and confusion can lead to tube dislodgement, resulting in multiple NG insertions throughout a patient's stay. Without clinical consensus on what is best practice, clinicians use inconsistent methods based on individual preference. Our review will provide a summary on the advantages and limitations of the various NG placement confirmation tools available to the bedside nurse. We will make our recommendations of what is needed from clinical organizations to ensure safe and efficient patient care is being delivered.

## **Nutritional Needs of the Neuro Trauma Patient**

**Carole Thompson, Patient Dietician, Medical Surgical Neurosurgical ICU, QEII Health Sciences Centre**

## **UTI's in Neuroscience Patients: To Treat or not to Treat**

**Angela Meagher RN-NP**

Urine specimens are one of the most commonly sent laboratory tests. Often these tests are positive – leading to the question: when does a positive culture indicate a urinary tract infection (UTI) and when does it simply indicate asymptomatic bacteriuria? Asymptomatic bacteriuria (bacteria in the urine with no symptoms) occurs frequently in hospitalized patients, including neuroscience patients, and often leads to a patient unnecessarily receiving antibiotics. The purpose of this discussion is: to understand the difference between a UTI and asymptomatic bacteriuria, to be able to identify the symptoms of UTI that neuroscience patients might have that differ from the general population, to understand when UTI's should be treated in neuroscience patients, and to appreciate the potential complications of treating asymptomatic bacteriuria.

Intended level of audience: all participants

Intended subspecialty: neurology, neurosurgery

## **Clinical Trials in Glioblastoma Multiforme**

**Lisa Nezvitsky, MSc**

**Isabelle Desloges, MSc**

Glioblastoma multiforme (GBM) is a grade IV astrocytic tumor of the central nervous system that affects 2 to 3 people per 100 000. The median survival with treatment is 14.6 months and the two year survival is only 30%. Ongoing research has highlighted the importance of a variety of biomarkers expressed by these tumors, and the need for more targeted therapies based on the expression profile of GBM tumors. Due to the heterogeneous nature of GBM tumors, and poor prognosis, there is an unmet need for better treatments and therapies. New treatment options for GBM are being explored in Canada, and globally, through a multitude of clinical trials. Accessibility to clinical trials can provide patients with new therapies, in addition to their standard of care (SOC) treatment, with the aim of improving overall survival and/or quality of life. The growing interest to incorporate clinical trials into SOC treatment calls on the need of clinical research staff within hospitals and clinics. The presence of a fully functional clinical research unit satisfies this need, and allows clinicians to offer patients access to clinical trials directly within their hospital.

Intended level of audience: All participants

Intended subspecialty: neuro-oncology

# Workshops

## **Advanced Therapies in Parkinson's disease: Duodopa and the Nurses Role**

**Kristina Novosel RN, Duodopa Nurse Specialist**

**Jennifer Doran BN, CNN(C)**

**Learning Objectives:** At the end of this session, participants will be able to:

1. Review clinical signs & symptoms of Parkinson Disease;
2. Understand the mechanism of action of Parkinson's medications and the response to various PD medications used;
3. Identify therapy options in Advanced Parkinson's; Duodopa, Deep Brain Stimulation (DBS) and explore selection criteria that makes patients eligible for these therapies;
4. Describe how intestinal gel infusion, Duodopa and its delivery system function;
5. Educate people with Advanced Parkinson's disease and their care partners in:
  - a. The daily care of the PEG insertion site;
  - b. The self-monitoring, self-management of the daily routine with Duodopa
  - c. The self-administration
  - d. Resources available

### **Description:**

Although the Parkinson's care nurse's role varies in different clinics across Canada, most are involved with the assessment, management, education and support of people with Parkinson's, their family and/or caregivers.

Parkinson's disease is the second most common of neurodegenerative diseases. With no cure Parkinson's affects a person's physical, emotional and social well-being. The complexity of the disease warrants an interdisciplinary approach to treatment and management. Nurses are often the health care professionals who have frequent contact with patients and their families, and as such, are in a unique position to assist patients in managing their Parkinson's symptoms. As advanced therapies become more available in Canada, education and awareness, and advocacy to access these treatments is imperative.

Nurses educated and trained in advanced therapies provide excellent sources of expert knowledge. They are able to offer guidance on managing medication to optimize results and reduce the impact of any possible side effects. This presentation will also focus on the nurse's role in supporting the clinical work/education and logistics of advanced therapies, in particular, Duodopa. This includes topics such as drug delivery, storage, tube insertion, pump programming, titration and daily living /aftercare. There will be a resource tool made available as a take-away.

**Length:** 90 mins Presentation

**Intended Level of Audience:** All participants

**Intended Subspecialty:** Neurology, Movement Disorder

## **SIMULATION can produce REAL collaborative team outcomes**

**Primary author:       Andrea Cole-Haskayne  
                                  Shauna Brady**

A breakdown in communication occurred on an inpatient unit where the potential existed for poor patient outcome. The Neurorehabilitation Patient Safety Committee identified the need to improve handover amongst all disciplines. We collaborated with the University of Calgary simulation lab to develop interprofessional situations intended to develop consistent methods related to communication and handover report.

Objectives included using closed-loop communication strategies utilizing a tool (SBAR), recognizing a medical emergency, formulating appropriate diagnosis and management utilizing unit protocols and guidelines. This would lead to increased confidence in the management of infrequently encountered medical presentations.

Scenarios included implementing the post-fall protocol for a stroke patient, an aggressive patient with unpredictable behaviour, a patient who required modified manual lung volume recruitment (MMLVR), a patient experiencing autonomic dysreflexia, and a patient who required tracheal suctioning.

A facilitated workshop was provided for select members of the interprofessional team who created scenarios set in both the inpatient unit and therapy area settings. Participants then engaged in the simulations, followed by a debriefing. Evaluations and feedback found improvement in self-reported confidence in initiating appropriate management and in communicating with physicians.

This initiative demonstrates how using simulation scenarios can positively impact interprofessional team collaboration and patient safety.

**Tuesday, June 26<sup>th</sup>**

## **Luncheon Poster Presentations**

### ***General Neurology Clinic Practice Direction Manual***

***Noorin Darvesh***

Background:

Nursing within the General Neurology Clinic (GNC) is an integral, yet relatively new role in the Department of Clinical Neurosciences. Areas for further development within this clinic were standardization and continuity of practice. The implementation of a clinic manual was discussed to ensure all relevant and evidence-based clinical information was easily accessible.

Methods:

A multidisciplinary approach was used in the development of this project. Data was collected from nursing staff, unit clerks, pharmacists, and physicians. Literature reviews were conducted to ensure accuracy of information.

**Results:**

As a result of the project, a Practice Direction Manual was created for nursing reference and new hires orientating to the clinic. Other facilities and disciplines are also utilizing this resource within their practice.

**Discussion:**

Collaboration and engagement amongst various disciplines has attributed to the success of this document. A Practice Direction Manual for this clinical area has helped with ease of accessing information, referencing evidence-based practice, and improving the continuity of care delivered.

*(a) Intended Audience – All Participants*

*(b) Intended Sub-speciality – Ambulatory Neurology*

**Cannabis use in the Saskatoon Neuromodulation Clinic patient population (poster)**

**Lindsay Schreiner, RN, BSN, CNN(c); Dr. Aleksander Vitali, MD, FRCSC, FCS (SA)  
Royal University Hospital, Saskatoon, SK**

**Objective:**

To determine if cannabis is effective in the treatment of patients with chronic pain and/or spasticity. Also, to obtain the number of actual patients who use cannabis in the Saskatoon Neuromodulation Clinic, specifically to treat their chronic pain and/or spasms, and real or perceived benefit of the cannabis itself.

**Materials and Methods:**

This study is being conducted anonymously via survey (paper or online options available to participants). Patients in our clinic who have chronic pain and/or spasticity and have an implanted device to treat their chronic pain and/or spasticity are being invited to participate in the study.

**Results:**

The study is currently ongoing. The anticipated end date of the study is March 30, 2018, at which time we aim to report the actual number of patients who use or have used cannabis, specifically to treat chronic pain and/or spasms; how effectively it treated their pain/spasms, using an NRS to identify pain levels prior to using cannabis vs post cannabis use; if the cannabis was effective in treating secondary symptoms related to their chronic pain/spasms and to what degree; whether cannabis has an opioid sparing effect; whether cannabis contributes to an improved quality of life, using a VAS to identify quality of life pre-implant, post implant, but prior to cannabis use, and finally post implant and cannabis use as an added therapy.

**Conclusion:**

Completion of the study is pending. However, even without analysis of the data, we already appreciate that this study has invited only a small subset of the population and therefore, the results cannot be generalized to the public. We recognize that this is an area which requires more research to determine if cannabis is an effective treatment for chronic pain and/or spasms and thus, could be considered as an appropriate treatment.



Intended level of audience – all participants  
Intended subspecialty – Neuromodulation

## **The Brain on Fire: A Case study on Anti- NMDAR Encephalitis at Toronto Western Hospital**

**Grissel Crasto**

Anti-NMDA receptor encephalitis is a rare disease that occurs when antibodies produced by the body's own immune system attack the N-methyl-d-aspartate receptors (NMDAR) in the brain (Anti-NMDA Receptor Encephalitis Foundation, 2018). For a relatively rare condition, Toronto Western Hospital (TWH) noted a staggering four cases of anti-NMDA receptor encephalitis in 2016 alone. Patients develop a multistage condition that progresses from psychosis, memory deficits, seizures, respiratory difficulties, abnormal catatonic movements and language disintegration into a state of unresponsiveness (Dalmau, Lancaster, Hernandez, Rosenfeld and Gordon, 2011). This case study will focus on the pathologies and medical journeys of three female patients diagnosed with anti-N-methyl-d-aspartate receptor encephalitis at TWH. This paper will discuss the unique presentations of each of the cases and the individualized nursing care plans developed to address the unique needs of this patient population. More specifically, it will highlight the importance of ensuring patient and staff safety in the development of these care plans. It will also discuss the need for implementing ongoing evaluations of these nursing care plans to address the developing needs of patients as they proceed through the diverse and complex phases of the condition.

## **Bedside Health Teaching Guide for Stroke Patients**

**Linda Butler**

The intended level of the audience for this poster is all participants.

Subspecialty: Neurology – Stroke specifically

Background:

As a district stroke center, Chatham-Kent Health Alliance offers comprehensive care to patients in an Integrated Stroke Unit housed within the hospital's Rehabilitation Unit. Our dilemma was to organize stroke education so that all nurses could cover the role of education for vacation times. Developing a bedside teaching sheet with prompts and cues for the nurse has been valuable.

Method:

Based upon guidelines from the Heart and Stroke Foundation the tool incorporates modifiable risk factor topics and goals for the patient and health care professional to reach for. The topics are accentuated with quotable cues for the nurse to use in teaching.

Results:

The bedside teaching tool has been found to be an adjunct to our nurses and also has been endorsed by physicians in our building, one who said, “This should be used by all nurses in the hospital for all patients.” The tool has helped to organize our teaching sessions and to improve the ‘hand off’ from one nurse to the next, assuring that all topics have been touched upon with room for brief notes, nurse’s initials and the date of the teaching session.

Conclusion:

Risk factor modification teaching is now organized, hand offs have improved and patient-centred care has been enriched.

## **STANDARDIZING DOCUMENTATION OF INTERPROFESSIONAL PATIENT EDUCATION IN STROKE INPATIENT CARE**

**H. Palalon<sup>1</sup>, C. Arulvarathan<sup>1</sup>, A. Cayley<sup>2</sup>, F. Quraishi<sup>2</sup>, L. Sultan-Khan<sup>3</sup>.**

“Patient, Staff and Family Education” is a core component required to attain Stroke Distinction, a rigorous quality-assurance program through Accreditation Canada. Clinicians provide education to patient and families — however, consistent and easily accessible documentation of this education is a challenge. Toronto Western Hospital (TWH) embarked on their Stroke Distinction journey from April 2016 until April 2017. A working group comprised of interprofessional colleagues and Patient Partners was tasked with satisfying indicators specific to Patient, Staff and Family Education. An environmental scan was completed and with the collaboration of stakeholders, a Patient Education Record (PER) was devised to document patient and family education. Through iterative Plan-Study-Act-Do cycles, aspects of the tool were revised. A patient engagement approach was utilized throughout. TWH achieved 100% of the Stroke Distinction requirements including all education requirements. Implementation of the PER tool was sustained by educational workshops for stroke unit staff. This was also linked with existing best practice initiatives on the stroke unit to support its uptake. The development of tools like the PER is beneficial for Canadian organizations committed to stroke care. It allows for clear and consistent documentation of patient and family education that contributes to best practice stroke care.

Key Words: Patient Education, Documentation, Stroke

Intended level of audience: All participants

Intended subspecialty: Neurology

Preferred format: Poster presentation

# Concurrent Sessions

## **Understanding Intracranial Hypotension**

**Chelsea Julian, RN (EC), MN**

Spontaneous intracranial hypotension (SIH) is a syndrome of low cerebral spinal fluid pressure characterized by postural headaches in patients without any history of dural puncture or penetrating trauma. SIH has become an increasingly recognized cause of new daily persistent headaches, but an initial misdiagnosis remains common. The incidence of SIH has been estimated at 5 per 100,000 per year. Often times, the diagnosis is delayed and the headache disorder can evolve into a chronic daily headache. Without treatment, neurological symptoms can progress and include nausea, vomiting, photophobia, cranial nerve palsies, gait abnormality, personality change, and memory decline. In rare instances, coma may occur. A thorough clinical history and examination along with various imaging techniques remains the mainstay in identification and diagnosis of SIH.

Spontaneous intracranial hypotension is much more common than generally realized and poses considerable diagnostic and treatment challenges. Improved awareness and understanding is paramount to the delivery of appropriate treatment for this specific patient population.

Through a case-based approach, the purpose of this presentation is to review the clinical presentation, pathophysiology, radiographic features, treatment and prognosis of spontaneous intracranial hypotension.

- a. Intended level of audience: all participants
- b. Intended subspecialty: neurology, neurosurgery, neuro-critical care

## **FAST VAN: Saskatchewan's Large Vessel Occlusion Stroke Screen**

**K. Ruth Whelan RN CNS CNN(c)**

Limited numbers of comprehensive stroke centers (CSC) exist across Canada and barriers in transporting the correct patients for mechanical thrombectomy is a consistent challenge. Many provinces have, or are in the process of, implementing large vessel occlusion (LVO) field screens. These screens are intended to direct emergency medical services (EMS) in communicating clinical stroke symptoms and perhaps, lead to bypass protocols when clinically relevant. In close collaboration with EMS and primary stroke centers (PSC) the Saskatchewan Stroke Expert Panel has initiated a provincial LVO field test – FAST VAN. This screening tool incorporates the traditional FAST signs of stroke with three commonly seen cortical symptoms experienced with LVO; visual gaze preference, aphasia and tactile neglect. Preliminary retrospective chart reviews showed the FAST VAN screen to have a sensitivity of 89% and a specificity of 75%. Ongoing data collection on the accuracy of use will be determined by the corresponding neurovascular imaging. The goal is to eventually initiate a bypass protocol to CSC when a patient is FAST VAN positive in the field. There are a variety of LVO field tests that are being trialed

across Canada and the United States. These tests will be considered as well as the strengths of the FAST VAN screen. Discussion will include methods of provincial roll out and the challenges experienced.

Intended level of audience: all participants

Intended subspecialty: Neurology (stroke)

## **Restraint as a Last Resort: Guiding Nursing Practice through the Least Restraint Pathway**

**Lindsay Sykes and Noorin Darvesh**

### Background

Alberta Health Services (AHS) introduced the **Restraints as a Last Resort** policy suite in February of 2018, to comply with best practice standards. To promote understanding and applicability of the policy, a Least Restraint Pathway and Reference Guide was developed by the Neuroscience Educators. The goal of the reference documents was to ensure all relevant information was easily accessible in order to help guide and inform clinical practice.

### Methods

The documents were trialed and feedback was requested from frontline clinical staff, medical teams, and managers. The educators engaged with stakeholders, including legal counsel and AHS Senior Practice Leads to ensure accuracy of information.

### Results

As a result of the documents, nurses reported a better understanding and ability to integrate the Restraint as a Last Resort Policy. Key areas of improvement were patient and family satisfaction, documentation, care planning and a significant change in least restraint use.

### Discussion:

Collaboration and engagement amongst various disciplines has attributed to the success of these documents. The Least Restraint Pathway has helped with ease of accessing information, referencing evidence-based practice, and improving patient care delivered.

- (a) Intended Audience: All participants
- (b) Intended Sub-specialities: Neurology, Neurosurgery

# Workshops

## **Understanding and managing seizures and status epilepticus**

**Margo DeVries-Rizzo, NP**

Do you find seizure types confusing? Is it hard to keep up with all the name changes: grand mal to generalized tonic-clonic to now generalized onset motor seizure? This workshop will provide participants with a practical and straightforward approach to learn key differences between various seizure types, decipher key aspects of the history, learn to localize seizure origin and spread, and classify the seizure according to the current seizure classification system. In 2017 the International League against Epilepsy (ILAE) revised it to be more practical and provide greater flexibility in describing seizure types. Understanding and recognizing these seizure types needs to be a basic skill set of all neuroscience nurses. Additionally, given some neuroscience patients may be at risk for status epilepticus, neuroscience nurses need to be proficient in providing seizure first aid and understanding the management of status epilepticus. This improved knowledge should lead to enhanced care and patient safety.

Using a case-based approach and videos showing different seizure types, the participants of this interactive didactic workshop will apply knowledge to practice by identifying different seizure types using the new classification system. Building on one case, participants will work through seizure first aid response and the current evidence-based medication algorithm for treating status epilepticus.

Workshop Objectives:

- Review and identify different types of seizures
- Apply knowledge to nursing practice using case studies
- Review seizure first aid response and treatment of status epilepticus

Category: Best Practice

Intended Level: All

Intended Specialty: All

## **Neuropalliative care: a new speciality in the clinical neurosciences**

**Marianne Sofronas, MA, RN, MSc(A), CNN(C), CCN(C), PhD(s)**

**Justine Gauthier RN MSc**

Neuropalliative care emerged as a new speciality in the clinical neurosciences over the last few decades. Centred on the unique needs of patients with life-limiting neurologic diagnoses at the end of life, neuropalliative care delineated itself as a new discipline, moving away from traditional palliative care models based on the needs of dying cancer patients. This presentation will outline the development of neuropalliative care as a discipline, by first reviewing the literature on why a new approach was needed,

and describing the end-of-life concerns and needs of patients with end-stage neurologic disease and their families. These patient and family concerns and needs have profound implications for care provision; they also challenge how we understand normative concepts such as a life worth living, and a good death. We offer the concept of personhood as a lens through which to examine, and begin to think about, the experiences of patients with life-limiting neurologic diagnoses at the end of life. Implications for nursing care, nursing research, and nursing ethics are considered.

The Objectives of this workshop are:

1. Become familiar with principles of palliative care and the palliative approach
2. Review evidence supporting the development of neuropalliative care, and delineate the unique needs and concerns of patients with end-stage neurologic diagnoses at the end of life.
3. Reframe normative concepts such as 'a life worth living' and 'the good death' in the neuropalliative context.
4. Examine implications for nursing care, nursing research, and nursing ethics.

Intended level of audience: All participants

Intended subspecialty: palliative care, neurology, neurosurgery

Preferred format/time: Workshop —2 hours

Wednesday, June 27<sup>th</sup>

## Plenary Session

### **Recent Advances in Stroke Treatment**

**Matthias H. Schmidt, M.Sc., M.D., F.R.C.P.(C.)**

Endovascular clot retrieval can improve the outcome of acute ischemic stroke (AIS) significantly in properly selected patients. We will review the evidence from clinical trials that brought about this paradigm shift in stroke treatment and consider the implications for clinical practice. We will discuss how neuroimaging is used to make treatment decisions in patients with AIS, and find out what happens in the neuroangiography suite when eligible patients undergo clot retrieval. We will then consider potential future developments in this rapidly evolving area of the clinical neurosciences.

## Concurrent Sessions

### **If You Can Nurse Neuro, You Can Nurse Anywhere: Educational Pearls for Teaching Neuro Nursing to Undergraduate Students**

**Danae Coggins, RN**

As a clinical instructor, it is often challenging to inspire students to become more than “an extra set of hands” on a heavy neuro unit. Students are often not prepared for advanced assessments, communicating with aphasic patients, or the (often) shocking appearance of this unique patient population. Challenges extend beyond the acute care setting into neuro rehab units, where students often feel as though they are not getting an acute experience with these more stable neuro patients, finding themselves at a perceived loss in terms of developing the coveted clinical skills. In this presentation, academic and practical strategies used to inspire, support, and push these students will be shared from the perspective of an experienced clinical instructor who is also a currently practicing neuro nurse. Success has been noted via the subsequent recruitment and retention of students who have been placed on these units.

- a) Intended level of audience
  - Basic/all audiences
- b) Intended subspecialty
  - Neuroscience nursing education

### **What’s in a Name: The New (2017) ILAE Classification of Seizures**

**Karen Legg, MN-NP Neurology/ Epilepsy Nurse Practitioner**

**Abstract:** Using a common language to describe and classify seizures makes it easier for clinicians caring for people with epilepsy or doing research on epilepsy to communicate with each other. Separating seizures into different types helps guide further testing, treatment, and prognosis. Classifying seizures also provides common words for people with epilepsy and the general public to use to describe seizures. The world’s main scientific body devoted to the study of epilepsy, the International League Against Epilepsy (ILAE), has recently revised the classification of seizures. The changes were made with the hope of making diagnosing and classifying seizures easier, more accurate, and more consistent around the world. The new basic seizure classification is based on 3 key features: where seizures begin in the brain, level of awareness during a seizure, and other features of seizures. Many of the terms we all know so well (simple partial, complex partial) are no longer appropriate. This presentation will walk attendees through the new terminology and classification system for seizures.

**Intended Level of Audience:** all participants

**Intended Subspecialty:** any clinician caring for an individual with seizures

## **Where's Waldo? Cognitive puzzles in the subarachnoid hemorrhage population.**

**Stephanie van Rooy, RN(EC), MN, CNN(c)**

Recovery from subarachnoid hemorrhage in patients without significant cognitive deficits at the time of discharge is often complicated by delayed reports of difficulty with concentration, focus, and short term memory. The neuroanatomy of memory is complex. There are several brain structures known to be important in memory – in particular the pre-frontal cortex, temporal lobe and hippocampus. In the absence of radiological evidence of injury to these or other brain structures associated with short term and working memory, the neurobiology of cognitive deficits in subarachnoid hemorrhage are difficult to explain. In cases of radiological brain injury, the neuroanatomical basis of cognitive impairments can often be partially explained. For health care workers, supporting patients and their families to understand these deficits can become challenging due to this complex topic and limited evidence as to the pathophysiology. This session aims to help clinicians apply neuroanatomy and available evidence based knowledge in assisting these clients.

This interactive session re-introduces the audience to an overview of memory neuroanatomy, and through case reports and evidence based review, we will discuss the theoretical basis of memory deficits in the subarachnoid hemorrhage population. The role of brain structures in cases where there is clear cerebral insult and radiologic injury will be compared to cases where these concrete findings are absent.

By the end of this session, the participant will be able to identify the broad memory types, brain structures associated, and provide an overview of the available evidence explaining working and short term memory deficits in subarachnoid hemorrhage.

- a. Intended level of audience: all participants
- b. Intended subspecialty: neurosurgery

## **Apollo System – Cutting Edge New Technique for Treatment of Intracranial Hemorrhage**

**Aaron Gardner, RN, BSN, CNN(c)**

Intracranial Hemorrhage (ICH) is the most devastating type of stroke with the highest rates of associated morbidity and mortality. There have historically been no specific medical or surgical interventions shown to improve outcomes in this patient population. The Apollo system (Penumbra Inc.) has recently been approved for use in Canada and is a new minimally invasive device that is designed to use a wand placed through a burr hole for extraction of blood products. Preliminary results are very encouraging in treatment of properly selected subset of patients with ICH.

This presentation will outline intracranial hemorrhage and the current considerations for treatment versus medical management. The Apollo system utilizes a technique which is minimally invasive evacuation of ICH and intraventricular hemorrhage. Patient selection, results and outcomes will be



reviewed. In addition, case studies and imaging of patients who have undergone the minimally invasive removal of ICH will be shown.

Intended level of audience – all participants

Intended Subspecialty – Neurosurgery/Neurology

### **Music-enhanced activities to promote patient engagement after stroke in acute care: a team quality improvement initiative.**

**Rosa Sourial<sup>1</sup>, Adriana Venturini<sup>2</sup>, Ann Marie Côté<sup>1</sup>**

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**Background:** Activating stroke survivors in acute care is challenging. Canadian Stroke Best Practices advocate early patient engagement to promote recovery. Our team is currently implementing a multi-pronged strategy during hospitalization to achieve this aim.

**Objectives:** 1) Assess music-enhanced movement program on a) amount of time patients are active, b) length of stay and c) satisfaction with activity. 2) Determine if a series of educational capsules for patient care attendants (PCA) will improve knowledge, enhance skills and change their practice behaviors.

**Methods:** The music-enhanced program is currently delivered by student volunteers, with supervision from a recreational therapist. Volunteers track patient-related outcomes. Length of stay and satisfaction will be analyzed pre/post two iterations. A multiple time series design will be used to evaluate the educational capsules.

**Results:** A first iteration of the music-enhanced movement program resulted in 109 visits by student volunteers and in 21 hours of additional activation for patients. The effect on length of stay and satisfaction of care are currently being examined. The educational capsules for the PCA have been well-received to date.

**Conclusions:** Patient-related and organizational factors need to be considered to enhance the sustainability of innovative practices. Early patient music enhanced activities after stroke may impact recovery.

### **Intensive functional rehabilitation project with Patients diagnosed with high grade gliomas**

**Mélanie St-Gelais, physiothérapeute**  
**Melissa Rodney, Travailleuse Sociale**  
**Olivier Mayrand-De Arteché, ergothérapeute**

Functional level is a significant factor in the prognosis of patients diagnosed with high grade gliomas.

Intensive rehabilitation plays an important role in a patient's life expectancy and quality of life. The literature indicates that the benefits of intensive rehabilitation for this clientele are comparable to those for TBI, stroke and meningioma patients. Huang (2000), Greenberg (2006)

The problem encountered were patients with high grade gliomas had access to rehabilitation only after their radiotherapy treatments, which resulted in prolonged hospitalization in acute care. Joint collaboration between the Montreal Neurological Hospital and Villa Medica Rehabilitation Center was made with the objectives of accelerating access to rehabilitation for these clients concurrent with their treatments, developing a center of expertise in rehabilitation, establishing indicators to facilitate a structured follow-up and contributing to the establishment of best-evidence practice.

Using a multidisciplinary approach, an open discussion between the two centers was established to help identify patients who would excel, hoping to provide a better outcome for this population as well as improve their quality of life. Up to now, primary results are promising and reflective of the literature.  
Level of audience: all participants

Intended subspecialty: neurosurgery

### **Swallowing Assessment in the Neuroscience Population**

**Shirley Singer Patient Dietician, Dept of Neurosurgery, QEII Health Sciences Centre**