symptomatic carotid disease. Presented here are a subset of results related to the decision to revascularize patients with SyNC. Results: Thematic analysis revealed equipoise in the decision to revascularize patients with SyNC. Participants discussed a desire to use imaging features (e.g plaque rupture and plaque morphology) to inform the decision to revascularize, though significant uncertainty remains in appraising the risk conferred by certain features. Experts support further study to better understand the use of these features in risk appraisal for patients with SyNC. Conclusions: The decision to revascularize patients with SyNC is an area with significant equipoise. Experts identify the use of imaging features as an important tool in informing the decision to pursue revascularization in patients with SyNC though more study is required in this area to better inform practice.

Child Neurology (CACN) Epilepsy and EEG

P.068

Quality improvement in Infantile Spasms through standardization: a tertiary-care centre retrospective chart review implementation study

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doi: 10.1017/cjn.2023.171

Background: Infantile Spasms (IS) is a rare epilepsy syndrome with characteristic features, and a strong consensus regarding treatment strategies. Clinical care pathways provide standardized and evidence-based patient care, support care quality and improve patient outcomes. Standardized electronic notes may support data collection and quality. After the concurrent implementation of an IS pathway and standardized electronic note at the Alberta Children's Hospital in 2015, improvements in patient outcomes and quality of care were anticipated. Methods: A single-centre, retrospective chart review of patients diagnosed with Infantile spasms in Alberta, Canada from 2011-2019 was completed. Patient characteristics and outcomes were analyzed by pre-pathway and post-pathway implementation status. Results: Rates of 3-month spasm remission, and of remission without relapse did not significantly differ between pre- and post-pathway cohorts. Rates of 2-week spasm remission were not obtainable from a significant proportion of pre-pathway patient records when compared to the post-pathway group, indicating patient record quality improved following the electronic note implementation. A significant proportion of patients received Prednisolone as their first treatment for IS post-pathway implementation compared to pre-pathway ($p<0.001$). Conclusions: A single-centre experience with concurrent implementation of an IS pathway and standardized electronic note demonstrated no significant changes in patient outcomes. Potential improvements for patient care are identified.

P.069

Is 4 days enough? an investigation into short admissions to the Epilepsy monitoring unit

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doi: 10.1017/cjn.2023.172

Background: The Epilepsy Monitoring Unit (EMU) plays a crucial role in a patient's diagnosis and management for seizures and epilepsy. The duration of stay required to obtain adequate information is not clear, especially in the pediatric population. In this study, we examine whether a one to four day length of stay in the EMU is sufficient to obtain the necessary information. Methods: Retrospective review of 522 admissions (2014-2021). Included any patient admitted to CHEO's EMU for any length of time. Results: The average admission was 1.75 days with 35.7% of patients requiring repeat EMU visits. Through a binary logistic regression, we show that a previous diagnosis of refractory seizures increases the chance of readmission to the EMU. However, a diagnosis of refractory seizures is also associated with a higher chance of achieving admission goals. While other factors including seizure type, weaning of meds, goals of admission, age, and gender have no influence on likelihood of readmission or achieving admission goals. Conclusions: This study indicates that having a short admission for EMU monitoring is sufficient to capture enough data to achieve admission goals in the pediatric population.

Neurocritical Care

P.070

Serial Neurological Assessment in Pediatrics (SNAP) compared to the Glasgow Coma Scale (GCS) in PICU

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doi: 10.1017/cjn.2023.173

Background: Glasgow Coma Scale (GCS) is the gold standard for neurological assessment in traumatic head injury. Limitations to GCS include variations in rater reliability, test setting and sedation/intubation. Serial Neurological Assessments in Pediatrics (SNAP) was designed to standardize neurological assessment. We examined the efficacy of SNAP for earlier detection of acute neurological decompensation. Methods: Retrospective analysis identified patients with acute neurological decline (drop in GCS of >2 in 1 hour). We reviewed GCS and SNAP (calculated using neurological consultant notes) scores 48 hours prior to decline. Slopes were calculated for each score over time. Results: Four patients were eligible, with > 2 GCS and SNAP scores available for calculation. Average slopes for GCS were 1.3, -0.8, 1.6 and 2.1 for eyes, voice, motor, and total GCS, respectively, and -2.6, 0, -2.3, -2.4, -2.4, -2.0, -2.8 and -11.9 for mental status, cranial nerve, communication, left and right upper extremities, left and right lower extremities, and total SNAP

score, respectively. Conclusions: All aspects of the SNAP score had negative and steeper slopes prior to neurological decline, whereas only 'voice' in GCS had a negative trend. These findings suggest that the SNAP tool may be useful in earlier identification of acute decline. Ongoing prospective studies are underway.

Neuromuscular Disease and EMG

P.072

Alberta Spinal Muscular Atrophy Newborn Screening (SMA-NBS) – 2022 results

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doi: 10.1017/cjn.2023.174

Background: Spinal muscular atrophy (SMA) is a progressive neuromuscular disease caused by biallelic mutations of the *survival motor neuron 1* (*SMN1*) gene. Early diagnosis via newborn screening and presymptomatic treatment are essential to optimize health outcomes for affected individuals. Methods: We developed a multiplex real-time polymerase chain reaction assay using dried blood spot samples for the detection of homozygous deletion of exon 7 of the *SMN1* gene. Newborns who were screened positive were seen urgently for clinical evaluations. Copy numbers of *SMN1* and *SMN2* genes were determined by multiplex ligation-dependent probe amplication for confirmatory testing. Results: From February 28, 2022 to December 31, 2022, 42,450 newborns were screened in Alberta. Four infants had abnormal screen results and were subsequently confirmed to have SMA. No false positive newborns were detected. Three infants received adeno-associated virus serotype 9 (AAV9)-mediated *SMN1* gene replacement therapy <31 days of age. One infant received *SMN2*-splicing modulator treatment due to maternally-transferred AAV9 neutralizing antibodies prior to gene therapy at 3 months of age. Conclusions: The estimated incidence of SMA in Alberta is 9.4 (95% CI: 2.5 – 24.1) per 100,000 live-births. During the first year of the SMA-NBS program, 4 asymptomatic infants received treatment and demonstrated excellent developmental progress to date.

P.073

Mapping a national Duchenne muscular dystrophy registry to the International Classification of Functioning, Disability, and Health

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doi: 10.1017/cjn.2023.175

Background: Duchenne muscular dystrophy (DMD) is an X-linked disease that causes progressive muscle wasting. The Canadian Neuromuscular Disease Registry (CNDR) DMD subset collects data focused on body structure and function. Our objective is to develop a broader dataset including the priorities of those living with DMD in accordance with the International Classification of Functioning, Disability, and Health (ICF) – a framework for describing disease and health functions developed by the World Health Organization. Methods: Clinically relevant ICF categories for DMD were identified and reviewed by two independent committees including two patients and six parent representatives. The Delphi approach was used to narrow ICF categories to a core set representative of DMD, which will be mapped to the CNDR-DMD subset. Results: With full result expected by the conference, the mapping of the ICF to the CNDR-DMD subset will identify data collection priorities in the four domains of functioning and disability: body functions and structures, activities at the level of the individual, participation in all areas of life, and environmental factors. Conclusions: The ICF can be used to identify data collection priorities. Broadening the CNDR-DMD subset will foster future research to include outcome measures important to patients and families affected by DMD.

Neurovascular and Neurointerventional

P.074

Risk factors for perinatal arterial ischemic stroke (PAIS): A machine learning approach

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doi: 10.1017/cjn.2023.176

Background: Perinatal arterial ischemic stroke (PAIS) is a leading cause of hemiparetic cerebral palsy. Multiple risk factors are associated with PAIS but studies are limited by small sample sizes and complex interactions. Unbiased machine learning applied to larger datasets may enable the development of robust predictive models. We aimed to use machine learning to identify risk factors predictive of PAIS and compare these to the existing literature. Methods: Common data elements of maternal, delivery, and neonatal factors were collected from three perinatal stroke registries and one control sample over a 7-year period. Inclusion criteria were MRI-confirmed PAIS, term birth, and idiopathic etiology. Random forest machine learning in combination with feature selection was used to develop a predictive model of PAIS. Results: Total of 2571 neonates were included (527 cases, 2044 controls). Risk factors uniquely identified through machine learning were infertility, miscarriage, primigravida, and meconium. When compared, factors identified through both literature-based selection and machine learning included maternal age, fetal tobacco exposure, intrapartum fever, and low