

in 4 (0.04%), Rhythmic waves evolving into spikes in 18 (19%), Polyspike bursts in 14 (15%), Spike-waves in 28 (30%), and sequential spikes in 18 (19%). 12/14 (86%) patients with Spike-waves had Engel I outcome; Engel class IV patients were more likely to have an evolution of morphology and frequency of ADs in 3 patients (75%). Conclusions: The most frequent morphology of ADs seen was spike-waves. AD morphology and duration may predict post-operative seizure outcomes.

## P.098

### Usefulness of language mapping during cortical stimulation for presurgical planning in Stereo-encephalograph

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**Background:** Language determination is a pivotal part of presurgical investigations. Presurgical cortical stimulation (CS) with language mapping (LM) in patients with intracranial recordings (SEEG) is a growing practice in some Comprehensive Epilepsy Centers. **Methods:** This retrospective, single center study included patients implanted with SEEG that underwent CS for LM in our Epilepsy Monitoring Unit. We describe frequencies, demographic characteristics of these patients and whether or not CS with LM was useful. **Results:** From January 2015 to June 2021, a total of 177 patients were implanted with SEEG and analyzed. 95 patients had CS and 44 of these had CS with LM. The mean age was 33 (ranging from 15-70). During LM, anomia was induced in 26 (58%), speech arrest in 22 (49%), paraphasic errors in 13 (29%), and hesitation in 9 (20%). LM results were recorded as influencing surgical decision in 7 (16%) patients, 4 (9%) did not undergo surgery due to expected language deficits and 3 (7%) proceeded with surgery due to an acceptable risk of language deficit. **Conclusions:** Cortical stimulation language mapping is useful for decision-making in presurgical evaluation and should be encouraged whenever involvement of language is suspected when determining the epileptogenic zone.

## MOVEMENT DISORDERS

## P.099

### Spasticity treatment patterns in long-term care using Ontario real-world evidence

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**Background:** Focal spasticity affects up to 1 in 3 residents in long-term care (LTC), with potentially disabling consequences. Data are limited on access to care for patients requiring botulinum toxin (BoNT) treatment in LTC. **Methods:** This retrospective, observational, real-world study was conducted using the Ontario

Drug Benefit claims database. Patients with  $\geq 1$  medical claim for BoNT for focal spasticity treatment were selected, and those residing in LTC were further identified. Data were analyzed for the utilization (2000–2019), treatment rate, and time-to-treatment with BoNT in LTC residents (2015–2019). **Results:** Over a 10-year period, the number of patients receiving BoNT for spasticity increased 7-fold and the proportion of patients residing in LTC versus community increased from 43% (2010) to 52% (2019). Of the LTC residents eligible for BoNT treatment, 33% received BoNT in 2015 compared with 63% in 2019. Injections/patient/year increased from 1.9 (2010) to 3.1 (2017). Following LTC admission, median time to first injection was 2.9 years. **Conclusions:** In this study, approximately 40% of eligible LTC residents in Ontario were not receiving BoNT treatment, and of those who were, median time to first injection was 2.9 years. Future policy considerations should prioritize uniform access to spasticity standards of care for LTC residents.

## NEUROCRITICAL CARE

## P.100

### Early recognition of unique conventional and amplitude-integrated EEG patterns and clinical semiology of neonatal seizures caused by SCN2A and KCNQ3 mutations

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**Background:** Early recognition of neonatal seizures secondary to pathogenic variants in potassium or sodium channel coding genes is crucial, as these seizures are often resistant to commonly used anti-seizure medications, but respond well to sodium-channel blockers. We report a unique aEEG pattern in neonatal seizures caused by *SCN2A* and *KCNQ3* pathogenic variants, as well as adding regular EEG description. **Methods:** International multicentre descriptive study, reporting clinical characteristics, aEEG and conventional EEG findings of 10 newborns with seizures due to pathogenic *SCN2A* and *KCNQ3* gene variants. **Results:** Seizures started in the first postnatal week. Seizure semiology typically included tonic posturing with apnea and desaturation. The aEEG showed a characteristic sequence of brief onset with a decrease, followed by a quick rise, and then postictal amplitude attenuation. This pattern correlated with bilateral attenuation in the EEG at onset, followed by rhythmic discharges ending in several seconds of post-ictal amplitude suppression. The majority of patients became seizure free upon initiation of a sodium-channel blocker. **Conclusions:** Neonatal seizures caused by *SCN2A* and *KCNQ3* mutations can be recognized by a characteristic ictal aEEG pattern and clinical semiology. Awareness of this pattern facilitates the prompt initiation of precision treatment with sodium-channel blockers even before genetic test results are available.