2350 RE-PROGRAM: THE EVALUATION OF A BRIEF INTERVENTION PROGRAM FOR PATIENTS WITH FUNCTIONAL SEIZURES

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Objectives To evaluate R*e*-PROGRAM, a novel, brief intervention for individuals with functional seizures in an outpatient setting.

Methods 30 patients with functional seizures participated in a novel intervention program between Aug 2020-Jan 2022 at the Alfred Hospital Functional Seizures Clinic. The evidence-based intervention consisted of five 1-hr consecutive weekly appointments via Telehealth, where psychologists engaged patients in seizure-management skills, lifestyle modification, and behavioural activation strategies. Following the intervention, patient feedback was collected using a 24-item self-report pre-post intervention comparison questionnaire.

Results All patients who enrolled in R*e*-PROGRAM completed the scheduled sessions. Of the individuals who returned the post-intervention questionnaire (n=14), 100% reported an overall improvement in their condition. Over 85% of patients reported a greater ability to control their seizures and an improvement in quality of life, with all but one reporting a reduction in seizure frequency. Most patients (93%) reported that their 'life had changed' as result of the program, and all patients indicated that they would recommend the program to others. Approximately one-third of patients (29%) reported a reduction in healthcare resource utilisation since completing the intervention.

Conclusions This retrospective evaluation demonstrates the feasibility and acceptability of R*e*-PROGRAM as a brief intervention for individuals diagnosed with functional seizures delivered in a clinical outpatient setting and warrants further investigation in larger scale, controlled studies.

2360 REAL-WORLD BRIVARACETAM EFFICACY IN ADULT EPILEPSY: AN AUSTRALIAN MULTI-CENTRE RETROSPECTIVE OBSERVATIONAL COHORT STUDY

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Objectives Assess the efficacy and tolerability of brivaracetam (BRI) in adult patients with epilepsy in a real-world setting.

Methods This multi-centre retrospective observational cohort study examined all adult patients commenced on BRI at 11 Australian epilepsy centres between May 2008 and November 2020. Primary outcomes were seizure response (≥ 50% reduction in frequency) and seizure freedom 12 months post BRI commencement. We compared incident (since last study time point) and continuous (since BRI commencement) outcome definitions, using three approaches to missing data (complete case analysis, CCA; last observation carried forward, LOCF; intention to treat, ITT). In addition, we examined individualised assessment waiting periods calculated using baseline seizure frequency.

Results Baseline and follow-up data was available for 229 patients. Mean age was 41.5 years (IQR 30, 50). Most had focal epilepsy (188/229, 82.1%). Median number of previous ASMs was 4 (IQR 2, 7), and concomitant ASMs 2 (IQR 2, 3). Twelve-month incident responder rate was 47.1% (95% CI 34.8, 59.6) using CCA, 39.7% (95% CI 33.4, 46.4) using LOCF, and 15.7% (95% CI 11.3, 21.1) using ITT. Twelve-month incident seizure freedom was 23.5% (95% CI 14.1, 35.4) using CCA, 24.5% (95% CI 19.0, 30.5) using LOCF, and 7.9% (95% CI 4.7, 12.1) using ITT. Outcomes were similar using continuous outcome definitions, and in the sub-group of patients who had completed individualised assessment waiting periods.

Conclusions Meaningful real-world responder and seizure freedom rates are still observed in this highly refractory population. Early BRI response appears to be maintained with minimal later relapse.

2295 CHANGES IN THE BURDEN OF GENERALISED FAST EPILEPTIFORM ACTIVITY PREDICT CHANGES IN CLINICAL SEIZURE FREQUENCY IN PATIENTS WITH LENNOX-GASTAUT SYNDROME

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Objectives Our recently published ESTEL study of deep brain stimulation (DBS) for Lennox-Gastaut syndrome (LGS) showed a median 50% reduction in diary-recorded seizures. Here, we examined whether EEG features predict response to DBS treatment.

Methods We measured generalised paroxysmal fast activity (GPFA) and electrographic seizures in 17 young adults with LGS (mean age ±1SD=24.9±6.6) and determined their associations with diary-recorded seizure frequency over the course of our ESTEL randomised clinical trial of DBS lasting 12 months (comprising a 3-month pre-implantation baseline and 9 months of post-implantation follow-up).

Results Changes in GPFA duration and frequency, quantified over 2-hours of sleep EEG, were associated with changes in the daily rate of diary-recorded seizures over the prior 3 months ($p<0.001$, η^2_p = 0.31–0.55). We did not find a relationship between electrographic seizures in the 24-hour EEG and diary recorded seizures over subsequent months. Following ≥3-months of active DBS, both GPFA and diary-recorded seizures reduced from baseline (38.7% and 31.4%,