RNS® System Key Publications

Clinical Outcomes

Brain-responsive neurostimulation treatment in patients with GAD65 antibody–associated autoimmune mesial temporal lobe epilepsy
Feyissa, et al. Epilepsia Open, 2020

Nine-year Prospective Safety and Effectiveness Outcomes from the Long-Term Treatment Trial of the RNS® System
Nair, et al. Neurology, 2020

Real-world experience with direct brain-responsive neurostimulation for focal onset seizures
Razavi, et al. Epilepsia, 2020

Sleep disruption is not observed with brain-responsive neurostimulation for epilepsy.
Ruoff, L. et al. Epilepsia Open, 2020

Treatment of drug-resistant epilepsy in patients with periventricular nodular heterotopia using RNS® System: efficacy and description of chronic electrophysiological recordings
Nune, et al. Clinical Neurophysiology, 2019

Responsive neurostimulation: Candidates and considerations
Ma, B and Rao, V. Epilepsy and Behavior, 2018

Sudden unexpected death in epilepsy in patients treated with brain-responsive neurostimulation
Devinsky, et al. Epilepsia, 2017

Brain-responsive neurostimulation in patients with medically intractable mesial temporal lobe epilepsy
Geller et al. Epilepsia 2017

Brain-responsive neurostimulation in patients with medically intractable seizures arising from eloquent and other neocortical areas
Infection and Erosion Rates in Trials of a Cranially Implanted Neurostimulator Do Not Increase with Subsequent Neurostimulator Placements

Differential Neuropsychological Outcomes Following Responsive Targeted Neurostimulation for Partial Onset Epilepsy

Quality of life and mood in patients with medically intractable epilepsy treated with targeted responsive neurostimulation

Two-year seizure reduction in adults with medically intractable partial onset epilepsy treated with responsive neurostimulation: final results of the RNS System Pivotal trial
Heck, et al, Epilepsia, 2014

Data Insights

Mesial temporal resection following long-term ambulatory intracranial EEG monitoring with a direct brain-responsive neurostimulation system

Using Continuous Intracranial Electroencephalography Monitoring to Manage Epilepsy Patients During COVID-19
Mirro and Halpern. Neurosurgery, 2020

Electrocorticographic events from long-term ambulatory brain recordings can potentially supplement seizure diaries
Quigg et al. Epilepsy Res 2020

Early detection rate changes from a brain-responsive neurostimulation system predict efficacy of newly added antiseizure drugs
Quraishi et al. Epilepsia, 2020

Quantitative electrocorticographic biomarkers of clinical outcomes in mesial temporal lobe epileptic patients treated with the RNS® system
Arcot Desai et al. Clinical Neurophysiol. 2019

Multi-day rhythms modulate seizure risk in epilepsy
Baud, et al. Nature Communications, 2018
Clinical and electrocorticographic response to antiepileptic drugs in patients treated with responsive stimulation
Skarpaas, et al. Epilepsy and Behavior, 2018

Changes in the electrocorticogram after implantation of intracranial electrodes in humans: The implant effect.
Sun et al. Clinical Neurophysiol. 2018

Circadian and ultradian patterns of epileptiform discharges differ by seizure-onset location during long-term ambulatory intracranial monitoring
Spencer, et al. Epilepsia, 2017