

Name: Levi Heller | DOB: 7/2/2020 | PCP: Sky Pittson, MD

Procedures (Levi)

Updated Mar 11, 2026

Procedures by Katherine Xiong, MD at 3/10/2026 9:11 PM

Procedure Orders

1. EEG Video 24 hours (Inpatient Only) daily 0600 [856175695] ordered by Jackson Edward Toth, MD at 03/10/26 0739

CONTINUOUS EEG REPORT

Identifying Information

Name: Levi Heller **MRN:** 52354446 **DOB:** 7/2/2020 **Age:** 5-year 8-month old male **LOC:** PCU400 Observation

Study Date: 2026-03-11 1620 to 2120

Duration of Study: 5 hrs

EEG Number: E26-50

Requesting physician or Dept: Neurology/Christopher William Lee-Messer, MD, PhD

History & Indication: Levi is a 5-year-old male with a history of autism and speech delay first noticed at around age 2 to 3 years.

Premedicated with risperidone and clonidine.

Conditions of Recording: This is a continuous 24-channel digital video EEG, performed using the International 10-20 System for electrode placement. Additional eye monitors and one-channel EKG were recorded for purposes of artifact detection. The recording was scanned manually by technologist and/or readers for seizures. Technical quality is satisfactory.

CONTINUOUS EEG (3/10/2026)

INTERPRETATION:

This EEG is ABNORMAL due to:

- Very abundant, becoming near continuous in sleep, multifocal epileptiform discharges (spike wave index increases from 78% in wakefulness to 95-100% in sleep.)

Comments:

The presence of interictal epileptiform discharges indicates an increased risk of seizures.

Spike wave index is 95-100% at sleep onset which is above the traditional diagnostic criteria for electrical status epilepticus in sleep (ESES) of 85% or updated ESES Consortium criteria of 50%, however, management depends on clinical symptoms in association with these findings.

Detailed Findings:

Background EEG

Awake: The record is continuous, of normal amplitude and bilaterally symmetrical. There is a well-developed posterior dominant rhythm of 8-9 Hz. There is a moderate amount of diffuse low amplitude 15-25 Hz beta activity and an appropriate amount of 4-7 Hz theta activity during wakefulness. No significant <4 Hz delta activity is present during wakefulness.

Sleep: With drowsiness, there is attenuation of the background alpha activity and shift to slower frequencies. As the patient enters into light sleep, vertex waves, symmetrical spindles, and positive occipital sharp activity of sleep (POSTs) are noted. Transition to the waking state is unremarkable.

Focal Slowing: None

Epileptiform Activity: Very abundant, becoming near continuous in sleep, multifocal epileptiform discharges. These are seen in O1, O2, P4, T3, T4-T6,

In wakefulness, the SWI is 78%.

In sleep, a spike wave index (SWI) was calculated from 1657-1702, (for 5 minutes) starting after the waking background rhythm had disappeared. Over the next 5 minutes, the number of seconds containing at least one spike wave was scored. There was a spike wave index of 95-100%. Qualitatively, SWI was as elevated continuously throughout all of non-REM sleep.

Seizures / Patient Events: None

Report prepared by: Jessie Kulaga-Yoskovitz, MD

Interpreting Attending: Katherine Brenda Xiong, MD

Teaching Physician Attestation

I reviewed the EEG tracing and the fellow's note, discussed the case with the fellow, and agree with the documented findings above.

Katherine Brenda Xiong, MD