# Collaboration on a Catatonia Conundrum: How Hospital Systems Came Together to Help a Patient Leilani Mahi M.D.<sup>1</sup>, Laura Markley M.D.<sup>1</sup>, Sarah Lytle M.D.<sup>2,3</sup>

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Transfer to University Hospitals (UH) for ECT and PET Scan

 Ovarian teratoma found and resected followed by treatment with steroids and plasmapheresis for suspected ant-NMDA receptor encephalitis

17-year-old female with no

progressive word-finding

difficulties, confusion,

and tremor

prior psychiatric history, but

with a couple days of rapidly

orofacial dyskinesias, ataxia,

Admission to Akron

Children's Hospital (ACH)

Transvaginal US

Encephalitis Film Array, CSF and

**Central Nervous** 

Carcinoembryonic

Carbohydrate AG

19-9, Fibrinogen

Plasma Exchange

Vitamin D, Anti-thyroid AB Profile,

Methylmalonic Acid, JCV Antibody,

recent cannabis use presented

- Autoimmune serologies, cerebrospinal fluid studies, electroencephalogram, and magnetic resonance imaging were all negative, leading to an amended diagnosis of seronegative autoimmune encephalitis
- Patient exhibited a waxing and waning course complicated by catatonia
- Lorazepam initiated with partial response
- Guardian reluctant to allow dose adjustments
- CL Team and Neurology conferred with NIMH and recommended electroconvulsive therapy and positron emission tomography which were not available ACH
- Guardian denied transfer
- Patient developed autonomic instability concerning for impending malignant catatonia
- Akron Children's CLP team contacted a peer known through ACLP Pediatric **Special Interest Group at University** Hospitals leading to transfer

Day 15

- Pet scan showed hypometabolism in bilateral motor strips and high parietal lobes, correlating hypermetabolism within the cerebellum, mild occipital hypometabolism with preservation of cingulate cortex
- ECT was started 3x a week, rituximab therapy was continued
- Patient started to exhibit agitation, paranoia, and hallucinations, olanzapine was discussed with guardian
- Guardian denied starting olanzapine
- Care Conference with multiple providers was held with guardians
- Guardian agreed to start olanzapine
- Following 26 ECT rounds, patient's catatonia improved however patient continued to endorse significant anxiety, auditory and visual hallucinations

Transfer to ACH for Day Rehab and Outpatient Care

Film Array, TSH,

Panel, MRI Brain,

#### Currently Thriving on Anti-Epileptic Medication and SSRI

- At follow-up Psychiatry appointment, patient demonstrated significant anxiety, active auditory and visual hallucinations, and "zone out" episodes. Tremors and unstable gait also noted
- Escitalopram was started, psychiatry recommended contacting neurology for a sooner follow up appointment
- Neurology follow up prompted repeat **EEG** which showed non-convulsive status epilepticus- with clinical hallucinations correlating with seizure activity
- After initiation of oxcarbazepine, auditory and visual hallucinations stopped, and olanzapine was titrated to discontinuation
- Patient remains on escitalopram for anxiety symptoms

### Challenges/Barriers

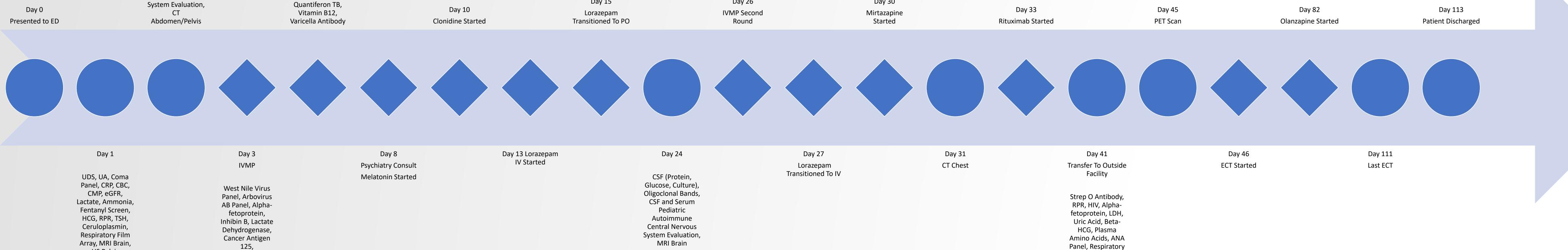
- **Clinical** 
  - Physiologic vs Psychologic, conflictual diagnoses from providers
- **Systemic**
- No capability of ECT or PET scan at the hospital of presentation
- **Familial** 
  - Guardian hesitancy for treatment, guardian burnout, multiple interdisciplinary care conferences involving guardians, caregiver transference/countertransference

#### Innovation/Collaboration

- Care coordination involving psychiatry, neurology, neuroimmunology, and pediatrics
- Psychiatry and Dr. GenaLynne Mooneyham, Medical Director of NIMH Autoimmune Brain Disorders Program
- Interinstitutional psychiatry through ACLP Pediatric Special Interest Group

## Clinical Significance of Case Report

- Catatonia can arise from a multitude of underlying disorders, including autoimmune encephalitis
- Autoimmune encephalitis should be considered in patients with subacute onset of symptoms, new focal CNS findings, and exclusion of alternative causes
- Early treatment has been shown to improve outcomes in autoimmune encephalitis
- Interdisciplinary collaboration can facilitate diagnosis and treatment planning



Day 30