
# Innovative Strategies and Interprofessional Partnerships to Provide Quality Care to anti-NMDA Paraneoplastic Encephalitis Patient

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## Introduction

For patients diagnosed with Anti-N-methyl-D Aspartate (NMDA) paraneoplastic encephalitis, the nursing challenge is to facilitate safe quality care for the patient. Care of these patients requires an interprofessional approach. Nursing care for these patients must include the treatment for the underlying cause as well as the neurologic affects of paraneoplastic syndrome. Working as a team this staff was able to support the patient and her mother in the transition from acute care to post discharge placement and eventual recovery.

## Clinical Presentation

- Neurological or psychological disturbance
- Seizures
- Short-term memory deficits
- Neuro-psychiatric symptoms
- Unresponsiveness
- Central hypoventilation
- Atypical movement disorder

*Patient (on left) and mother one year after discharge*

## Understanding Paraneoplastic Syndromes (PNS)

- Disorders associated with indirect influence of cancer from tumors or metastasis; tumor may be very small.
- Neurologic paraneoplastic conditions affect less than 1% of cancer patients.
- Mechanism unclear that produces neurologic changes – autoimmune, neurotoxicity, infection or nutritional deficiency.
- Treatment of underlying cancer is necessary to treat prolonged effects of PNS.
- Plasmapheresis to remove antibodies is used for symptom relief.
- Astute nursing care required for symptom management.
- Nursing interventions related to treatments that include chemotherapy.

## The Case Study

- 27- year old female with history of psychiatric concerns, confusion, tremors, seizures, unresponsiveness.
- One day admission to psychiatric facility for hysterical and illogical thinking.
- Prolonged admission at outside hospital ( OSH) for altered mental status with unresponsiveness.
- Two year history of loss of consciousness and memory loss.
- Trach and PEG performed at OSH; EEG on admission showed encephalopathy but no seizure activity.
- Ativan and Propofol infusions to reduce sever dystonia with rigidity and abnormal flexion of the arms and involuntary movements.
- Vecuronium added to prevent further movement and injury.
- Benign ovarian teratoma identified and removed 15 days after admission and suspicion of paraneoplastic syndrome.
- Initial anti-NMDA antibody titer was 1:320. Post-discharge follow up 7 months after presentation was 1:80Course of treatment: plasmapheresis, IVIG, chemotherapy, ventilator support and monitoring.
- **COURSE OF TREATMENT**: plasmapheresis, IVIG, chemotherapy, ventilator support, and monitoring.
- Weaned off ventilator, but developed episodes of bradycardia related to sinus node dysfunction and episodes of apnea. Developed PEA in one episode
- Patient was discharged to LTACH with trach and PEG after 8 months in Neuro CC Unit

## Care Plan and Interventions

### Nursing Plan of Care Issues

- **Risk for injury related to movement disorder and severe involuntary movements that propelled patient over bedrails.**
  - Placed patient on mats on floor; lowered bed.
  - "Cocooned" in lift to protect from falling out of bed
- **Airway protection issues:** continuous pulse ox.
- **Decreased Cardiac output related arrhythmias:** EKG monitoring

### Collaboration with Other Professionals

- Partnership needed with social work and care coordination related to patient placement.
  - Patient hospitalized for 8 months in Neuro CC Unit.
  - Required outpatient Chemo after discharge.
  - Mother worried about apnea/bradycardia episodes
- Ethics consult to discuss:
  - Current and future care needs.
  - Nursing burn out.
  - Continuity of MD provider for mother,
  - Better symptom control of dystonia
- Placement challenges related to insurance and inability to participate in therapies, airway needs and psychiatric disorder

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