Too Sick to Transfer – Toward Creating an On-Call ECT Consult Service in the General Hospital

Dylan Hershkowitz MD[1], Colin Harrington MD[1,2,3], Christina Scully MD[1,2], Arnaldo Berges MD[1,2]

[1]Department of Psychiatry and Human Behavior, Alpert Medical School of Brown University [2]Department of Psychiatry, Rhode Island Hospital

[3]Department of Medicine, Alpert Medical School of Brown University

Background

- Severe depression, psychosis, and catatonia are prevalent conditions on inpatient medical-surgical services and frequently drive psychiatric consultation. These syndromes are more common in patients with SMI, who are often socioeconomically disadvantaged.
- ECT can be a rate limiting and urgently indicated therapy in the treatment of these conditions. Transfer to inpatient psychiatry for the purposes of providing ECT can be difficult due to medical-surgical instability.
- ECT is at baseline a scarce resource in many institutions. Access to ECT for patients outside the inpatient psychiatric service is limited and requires the cooperation of multiple services.
- There are multiple barriers to the provision of ECT on the medical-surgical floors.
- We describe a quality improvement intervention designed to assess the needs for and delivery of urgent / emergent ECT in the general hospital.
- Goals of this project included education about prevalence, diagnosis, and associated morbidity of catatonia, the role of ECT in catatonia and related psychiatric conditions, and identification of barriers and solutions to providing timely access to ECT.

Methods

- We convened a group of stakeholders including representatives from medicine, anesthesia, nursing, and psychiatry to identify:
  - The current practices related to care of patients with neuropsychiatric illness who are medically and/or surgically unstable for transfer to inpatient psychiatry and who require urgent/emergent ECT.
  - The perceived barriers to expanding access to ECT for patients who require urgent/emergent ECT.
  - The proposed solutions to these barriers to allow greater access for urgent/emergent access to ECT services on the general medical/surgical floors.

Results

- Themes identified from the stakeholders meetings were compiled by department.
- Themes emerged across services, including time, space and equipment limitations.
- All services agree that improved access to ECT would improve patient care.

Stakeholders Meeting – Expanding Access to ECT

Service	Current State of ECT	Barriers to Expanding	Proposed Solutions
Psychiatry	- Catatonia is relatively common on CL and inpatient services - 10 daily treatment slots for both maintenance and acute phase - ECT typically requires transfer to inpatient psychiatry - Current waitlist is long for both ECT and transfer to inpatient psychiatry - ECT providers are primarily inpatient and research physicians; no CL psychiatrists are ECT trained	- Some patients medically unstable for transfer to inpatient psychiatry - Limited access to ECT appointments – all scheduled patients are established maintenance or active inpatient psychiatry patients - COVID-19 restrictions limit acceptable venues (size, ventilation, competing with other procedural space) - Practically, only available on inpatient unit	- Expand the number of designated daily slots - Include an emergency add-on slot - Train more providers in ECT with emphasis on CL providers - Explore additional space for ECT such as a designated ECT suite
Anesthesia	- ECT scheduled for morning cases, limited time slots - Anesthesiologists have additional responsibilities before and after ECT - A specific group of anesthesiologists perform sedation for ECT - ECT is not included in the on-call coverage responsibilities	- OR Space is limited - ECT competes for time/space with other procedures - ECT and anesthesia equipment not currently portable – restricted to one OR - Not all providers are familiar with performing sedation for ECT - Limited providers available for on call, covering surgical emergencies	- Expand training in sedation for ECT - Create an ECT "Crash-Cart" for portable ECT availability outside the designated ECT suite - Include ECT as a potential procedure in the on-call responsibilities
Medicine & Nursing (med/surg)	- Primary services managing patients with catatonia - Lecture on catatonia diagnosis and treatment is provided to medicine house staff as of 2020	- Challenges in diagnosis, treatment, and recognition of warning signs for malignant catatonia - Long wait for transfer to inpatient psychiatry - Behavior interfering with routine care and standard nursing interventions	- CL psychiatry to provide additional formal in-service training to med/surg physician and nursing staff and consult based education for catatonia with concern for progression to malignant state

Discussion

Stakeholders from nursing, psychiatry, and anesthesia met and discussed issues of neuropsychiatric emergencies and related access to ECT. Due to the ongoing COVID pandemic and related downstream effects upon staffing, our medicine colleagues have been less available for regular meetings on this topic over the last 6 months. While definitive plans are still pending implementation, all stakeholders have agreed upon the following points:

- Catatonia is a neuropsychiatric emergency and carries significant morbidity and mortality (including complications of aspiration, pneumonia, decubiti, DVT, and PE amongst others).
- Definitive Tx of catatonia often includes ECT.
- Delays /deficiencies in access to ECT can clearly worsen morbidity.
- Catatonic patients are often too medically unstable to transfer to the inpatient psychiatric unit, necessitating that ECT be readily available on the medical-surgical units.
- More time on the medical and/or surgical units without timely access to ECT can result in worsening neuropsychiatric illness, medical illness, and clinical instability, further delaying transfer to inpatient psychiatry.

Hospital and department leadership are incorporating the proposed solutions from the stakeholder meeting to improve access to ECT.

Conclusions

- Neuropsychiatric conditions, including catatonia, can complicate and/or be driven by underlying medical-surgical illness and represent a neuropsychiatric emergency.
- These patients can become too medically ill to transfer to an inpatient psychiatry unit.
- By creating an on-call and/or designated add-on system for the provision of emergent ECT within 24 hours of its recognized need, we aim to reduce the overall morbidity associated with these conditions.

References

Lloyd JR, Silverman ER, Kugler JL, Cooper JJ. Electroconvulsive Therapy for Patients with Catatonia: Current Perspectives. Neuropsychiatr Dis Treat. 2020;16:2191-2208. Published 2020 Sep 25.

Ramakrishnan VS, Kim YK, Yung W, Mayur P. ECT in the time of the COVID-19 pandemic. Australas Psychiatry. 2020;28(5):527-529.