# **Psychiatry Grand Rounds**

WCM Department of Psychiatry Psychology CE Announcement

# Neurobiology and Management of Delirium: An Evidence Based Approach

#### José R. Maldonado, M.D., FACLP, FACFE

John & Terry Levin Family Professor of Medicine
Professor of Psychiatry and, by courtesy, of Internal Medicine, Surgery, Emergency Medicine & Law
Chief, Division of Medical Psychiatry
Medical Director, Consultation-Liaison Psychiatry & Psychosomatic Medicine
Chief, Emergency Psychiatry Service & Disaster Psychiatry
Chief, Critical Care Psychiatry Service
Consultation-Liaison Psychiatry Training Program Director
Associate Chair, Department of Psychiatry & Behavioral Sciences
Stanford University School of Medicine

#### Location: Uris Auditorium AND Livestreamed via Zoom

Wednesday, April 23rd, 2025 11:00am – 12:00pm https://weillcornell.zoom.us/j/92812036154 Meeting ID: 928 1203 6154 Password: 12345





Department of Psychiatry full time and voluntary faculty Psychologists, Social Workers and LMHCs, who sign in with their full name, attend the entire lecture and complete a survey which will be emailed following the completion of the lecture. Note you can join no later than 10 minutes after the start of time and must stay for the entire duration of the event for CE eligibility. The CE survey must be completed within 30 days of the lecture. Please contact wcmpsychiatryce@med.cornell.ed u for additional CE information

# Speaker

Dr. Maldonado is the John & Terry Levin Family Endowed Professor of Medicine, Associate Chair for Hospital & Medical Psychiatry, Chief - Division of Medical Psychiatry, and Chief, Critical Care Psychiatry Service - Stanford University School of Medicine. Dr. Maldonado has been the recipient of multiple awards and recognitions, the most recent include: the 2017 - Franz-Köhler-Inflammation-Award from the German Society of Anesthesiology and Intensive Care Medicine (DGAI) for extraordinary achievements in research on inflammation and its relationship to the pathophysiology of delirium; and the 2018 - Eleanor and Thomas P. Hackett Memorial Award by the Academy of Consultation-Liaison Psychiatry, the Academy's highest honor, for distinctive achievements in CLP training, re-search, clinical practice, and leadership; and recipient of the 2024-Dlin/Fischer Clinical Research Award-for significant achievement in clinical research for the development of the Stanford Proxy Test for Delirium. He has authored over 100 manuscripts in peer-reviewed journals and dozens of chapters in scientific textbooks. His research lab developed a number of tools for the prediction and assessment of various neuropsychiatric disorders, including the Stanford Integrated Psychosocial Assessment for Transplantation (SIPAT) for assessing psychosocial candidacy of organ transplant candidates; the Stanford Proxy Test of Delirium (S-PTD)- for the development of a new tool for the timely and accurate diagnosis of delirium; the Stanford Algorithm for Predicting Delirium (SAPD), to help predict patients at risk for developing delirium; and the Prediction of Alcohol Withdrawal Severity Scale (PAWSS). He has developed management protocols and algorithms for the prevention and treatment of delirium; as well as novel pharmacological techniques (benzodiazepine-sparing protocol) for the prophylaxis and treatment of complicated alcohol withdrawal syndromes.

Financial Disclosure: Dr. Maldonado has no relevant financial relationship(s) with ineligible companies to disclose and DOES NOT INTEND to discuss off-label or investigational use of products or services.

#### Abstract

Delirium is a neurobehavioral syndrome caused by the transient disruption of normal neuronal activity secondary to systemic disturbances. It is also the most common psychiatric syndrome found in the general hospital setting; its prevalence surpassing better known psychiatric disorders. In addition to causing distress to patients, families, and medical caregivers, the development of delirium in general, and postoperative delirium in particular, has been associated with increased morbidity and mortality, increased cost of care, increased hospital-acquired complications, slower rate of recovery and poor functional and cognitive recovery, decreased quality of life, prolonged hospital stays, and increased placement in specialized intermediate and long term care facilities. In this lecture we will review the published literature on delirium and will address the epidemiology, known etiological factors, presentation and characteristics of delirium, while emphasizing what we know about treatment strategies and prevention. Given increasing evidence that delirium is not always reversible and the many sequelae associated with its development, physicians must do everything possible to prevent its occurrence or shorten its duration, by recognizing its symptoms early, correcting underlying contributing causes, and using treatment strategies proven to help recover functional status.

## Learning Objectives

- $1. Describe the latest theories \ related \ to \ the \ neurobiology \ of \ delirium.$
- Identify clinical, evidence-based treatment options shown to be effective in managing delirium.
- 3. Discuss the most significant short- and long-term outcomes associated with the development of delirium.

## References

- 1. Ely, E., Gautam, S., Margolin, R., Francis, J., May, L., Speroff, T., Truman, B., Dittus, R., Bernard, G., & Inouye, S. (2001). The impact of delirium in the intensive care unit on hospital length of stay. *Intensive Care Medicine*, 27(12), 1892–1900. https://doi.org/10.1007/s00134-001-1132-2
- 2. Infante, S., Behn, A., González, M., Pintor, L., Franco, E., Araya, P., & Maldonado, J. R. (2023). Reliability and validity of the Spanish adaptation of the Stanford Proxy test for delirium in two clinical Spanish-Speaking communities. *Journal of the Academy of Consultation-Liaison Psychiatry*, 65(2), 136–147. https://doi.org/10.1016/j.jaclp.2023.09.004
- 3. Maldonado J. R. (2017). Acute Brain Failure: Pathophysiology, Diagnosis, Management, and Sequelae of Delirium. *Critical care clinics*, *33*(3), 461–519. https://doi.org/10.1016/j.ccc.2017.03.013

Weill Cornell Medicine (WCM) Department of Psychiatry, 525 E 68th St. New York, NY 10065, is recognized by the New York State Education Department's State Board for Psychology as an approved provider of continuing education for licensed psychologists #PSY-0192. Weill Cornell Medicine (WCM) Department of Psychiatry is recognized by the New York State Education Department's State Board for Mental Health Practitioners as an approved provider of continuing education for licensed mental health counselors. #MHC-0302. Weill Cornell Medicine (WCM) is approved by the American Psychological Association to sponsor continuing education for psychologists. Weill Cornell Medicine (WCM) maintains responsibility for this program and its content. The New York Presbyterian Hospital Department of Social Work is recognized by New York State Education Department's State Board for Social Work as an approved provider of continuing education for licensed social workers #SW-0155.