

CRITICAL CARE CONGRESS

FEBRUARY 23-25, 2025 | ORLANDO, FLORIDA

Society of
Critical Care Medicine
The Intensive Care Professionals



Submission Title: Prospective Analysis of Delirium Trajectories in ICU: Implications for Tailored Management

SUBMISSION PREVIEW: PROSPECTIVE ANALYSIS OF DELIRIUM TRAJECTORIES IN ICU: IMPLICATIONS FOR TAILORED MANAGEMENT

[Prospective Analysis of Delirium Trajectories in ICU: Implications for Tailored Management](#)

Submission ID: 1893883

Submission Format: Abstract Submission

Submission Category: Research

Submission Status: Complete

Author(s)

Aditya Khanijo, MBBS

Role: First Author

Allison Perez Rodriguez, MD,

Role: Co-Author

Saptarshi Ghosh, MBBS

Role: Co-Author

JUHI SAHAJWANI, MBBS

Role: Co-Author

Nico Ayala, MBBS

Role: Co-Author

Hannah Friesen

Role: Co-Author

Pablo Moreno Franco, MD

Role: Co-Author

Anirban Bhattacharyya, MD, MS, MPH

Role: Co-Author

Heidi Lindroth, PhD, RN

Role: Co-Author

INTRODUCTION

Delirium, an acute brain dysfunction, is seen in 20-70% of intensive care unit (ICU) patients and is associated with worse outcomes. While the Confusion Assessment Method-Intensive Care Unit (CAM-ICU) detects delirium at the bedside, there is no test to understand its trajectory. We aim to prospectively analyze their delirium disease trajectory and correlate it with time of day.

METHODS

In a prospective cohort of adult (≥50 years age) ICU patients, we analyzed Richmond Agitation and Sedation Scale (RASS) and CAM-ICU scores. We classified delirium as hypo, mixed and hyperactive delirium and followed their trajectory over 3 days. We identified the following trajectories of delirium: mild brief (MB), mild accelerating (MA), severe rapid recovers (SRR), severe slow recovers (SSR) and severe non recovers (SNR) based on their CAM-ICU trajectory going from initial reading of 3-5 to ≤2 in 12-24 hours, 3-5 to >3-5 in 24 hours, 6-7 to 0 in 0-60 hours, 6-7 to >0 in 0-60 hours and persisting as 6-7 persisting over 60 hours respectively. We also analyzed the behavior of CAM-ICU and RASS scores across time of day using ANOVA. We used Blue Sky (ver:7.40) for statistical analysis.

RESULTS

Ten participants with median age of 70 years (IQR 56-75), 34% female, 90% Caucasian, with a mean of 9 ± 2.87 delirium assessments, had 80% hypoactive, 20% mixed, and no hyperactive delirium. Twenty percent of patients had MB, 40% MA, 10% SRR, 20% SSR and 10% SNR when reporting their delirium trajectories. The median times between changes in consecutive RASS and CAM-ICU scores were 6 hours (IQR 3.03 – 19.03) and 3.18 hours (IQR 2.30 – 16.06) respectively. Time of assessment was associated with both CAM-ICU (F=4.195, p=0.0012) and RASS values (F=3.393, p=0.0051).

CONCLUSIONS

Our study highlights the variability in delirium presentations and trajectories among ICU patients, emphasizing the need for tailored management approaches

Categories

General Classification

Clinical

Patient Type

Adult

Category

Future of Critical Care

Category Alternate 1

Research

Category Alternate 2

Neuroscience

Keywords

delirium

innovation

precision medicine

severity score systems

Ethics and AI Agreement

In submitting this abstract/case report, I am affirming that the submission pertains to work done by me, as the submitting author, and my co-author colleagues; and that it was done according to generally accepted scientific research principles.

I agree

In submitting this abstract/case report, should artificial intelligence be used for content creation, I am affirming its use will be reported in the Methods section of the submission. Concealing the use of artificial intelligence in content creation violates scientific integrity and is regarded as scientific misconduct; disclosure is always required. Authors of a submission collectively assume all responsibility for artificial intelligence created content and of its verification. Failure to verify the creation of artificial intelligence created content before submission is scientific misconduct.

I agree

Program Director Information Form

Is the First Author in a training program as an SCCM Sponsored Trainee member?

No

Program Director Name

Program Type

Program Institution

Program Director Email Address

Congress Scholarships

Do you meet these criteria?

- Be an SCCM member
- Be a member of the section to which the applicant is applying
- Attending the 2025 Critical Care Congress
- Be the first and presenting author of an accepted abstract
- Not be a section leader

Yes

Select the section for which you are a member:

Internal Medicine

Select the section for which you are a member:

Select the section for which you are a member:

Abstract Award Applications

SCCM In-Training Award

SCCM Early Stage Researcher Award

Clinical Pharmacist and Pharmacology: Patient Safety Early Stage Researcher Award

Clinical Pharmacist and Pharmacology: Innovations in Patient and Medication Safety Award

Hector R. Wong Award for Precision Medicine in Sepsis