

# ATS Highlights 2025: Critical Care Assembly Early Career Professionals



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### ***Tell us about yourself.***

I am a pulmonary & critical care physician-scientist at Vanderbilt University Medical Center and the Nashville Veterans Affairs Medical Center. I completed residency at the University of Kentucky and fellowship at Vanderbilt. I also completed additional research training during fellowship on an NHLBI T32 grant and completed a Master of Science in Clinical Investigation (MSCI) from the Vanderbilt University School of Medicine. I serve as research faculty in the Critical Illness, Brain Dysfunction, and Survivorship (CIBS) Center at Vanderbilt.

### ***Tell us about your research.***

I conduct patient-oriented outcomes research on functional recovery after critical illness. My current work includes a VA-funded observational cohort study of imaging and blood biomarkers of mitochondrial function as predictors of physical recovery after the ICU. I also serve as the site PI for two NIH-funded clinical trials including a remotely monitored rehabilitation intervention and a drug trial to improve long-term cognitive and physical outcomes after COVID-19.

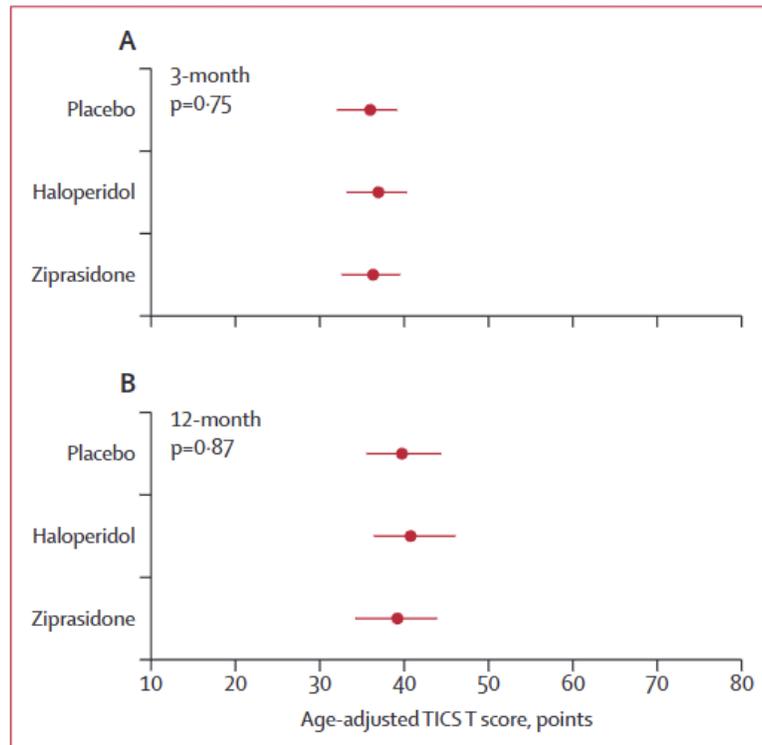
### ***Where do you see yourself in 5 years?***

In the next 5 years, my goals are to identify clinical and translational predictors of recovery after the ICU and continue to develop and test novel interventions to improve the outcomes and quality of life of our ICU survivors.

### ***How has the Critical Care Assembly contributed to your career?***

The Critical Care Assembly has been instrumental in my career development. From CC Assembly Abstract Scholarships, to the mentoring program, to the opportunity to serve on the Planning Committee, it has helped me network with critical care leaders from across the country and internationally and shaped my academic trajectory.

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**Figure 2: Long-term cognition by treatment group**  
Global cognition, as measured by TICST score, at 3-month (A) and 12-month (B) follow-up after critically ill patients with delirium were treated with placebo, haloperidol, or ziprasidone. Data are adjusted median (95% CI). Treatment effects were estimated after adjusting for pre-randomisation predictors of cognition, including age, sex, race, baseline frailty, level of education, and baseline score on the short IQCODE. IQCODE=Informant Questionnaire on Cognitive Decline in the Elderly. TICST=Telephone Interview for Cognitive Status.

## Long-term outcomes after treatment of delirium during critical illness with antipsychotics (MIND-USA): a randomised, placebo-controlled, phase 3 trial

**Rationale:** Delirium is common during critical illness and is associated with long-term cognitive impairment and disability. Antipsychotics are frequently used to treat delirium, but their effects on long-term outcomes are unknown.

**Methods:** Adults with delirium admitted to an ICU for respiratory failure or shock were included. Participants were randomly assigned to receive intravenous placebo, haloperidol, or ziprasidone for up to 14 days. At 3 months and 12 months after randomization, we assessed survivors' cognitive, functional, psychological, and quality-of-life outcomes

**Results:** Of the 566 patients enrolled, 184 were assigned to the placebo group, 192 were to the haloperidol group, and 190 were to the ziprasidone group. One year survival and follow-up rates were similar between groups. A third of survivors were cognitively impaired at both 3-month and 12-month follow-up in all groups. More than half of the survivors in each group had cognitive or physical limitations (or both) that precluded employment. At both 3 months and 12 months, neither haloperidol (adjusted odds ratio 1.22 [95% CI 0.73–2.04] at 3 months and 1.12 [0.60–2.11] at 12 months) nor ziprasidone (1.07 [0.59–1.96] at 3 months and 0.94 [0.62–1.44] at 12 months) significantly altered cognitive outcomes. There was also no difference in functional, psychological, or quality-of-life outcomes among the groups.

**Conclusions:** Among delirious, critically ill adults, neither haloperidol nor ziprasidone improved cognitive, functional, psychological, or quality-of-life outcomes among survivors.