ATS 2023, Washington, DC – In a randomized controlled trial, ICUconnect helped ICU physicians to reduce unmet palliative care needs of critically ill patients and their families better than standard care did, according to research published at the ATS 2023 International Conference. ICUconnect is a mobile app that enables families to give and receive information related to basic palliative care principles and for ICU clinicians to visualize patient/family data in order to better support them.

The study was conducted with 43 clinicians and 111 pairs of patient/family members in six adult medical and surgical ICUs in academic and community hospitals across North Carolina. Clinicians were randomized to either provide the usual care or to use ICUconnect to communicate with family members and provide advice on how to meet their needs. Patients in the study were critically ill—on mechanical ventilation for at least 48 hours. Participants were evenly divided between Black and white patients because this trial was specifically focused on racial disparities in care.

The primary outcome was patient score on the Needs at the End-of-Life Screening Tool (NEST), completed after a week of ICU care. Developed from the experience of palliative care patients across the United States, NEST is a patient/family member survey that asks 13 questions that help determine patients’ end-of-life care needs. “Compared to usual care, intervention participants experienced a greater improvement in unmet needs as measured by the NEST at both day three and day seven,” said corresponding author Christopher Cox, MD, MPH, intensivist and palliative medicine specialist at Duke University Medical Center. White family members who received the intervention improved substantially more than the usual care group, while Black family members in both groups improved—though only to a level similar to white participants’ pre-intervention needs.

In addition to the NEST scores, family members were evaluated on mental health measures three months after the start of the study. While three-month symptoms of depression and anxiety improved
moderately, and improved mildly for post-traumatic stress disorder, there were no statistically significant differences between the ICUconnect and usual care groups.

Dr. Cox concluded: “Overall, this trial provides compelling evidence for an easily replicable, intensivist-delivered, ‘primary palliative care’ intervention focused on person-centered outcomes. It also demonstrates that additional studies with larger sample sizes of Black and other marginalized individuals are needed to better understand potential mechanisms of and remedies for these findings including intensivists’ interactions with family members.”

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