Clemson University researchers say that providing better sleep quality and proper sedation for patients in Intensive Care Units will decrease their levels of delirium, a syndrome that presents severe confusion and disorientation.

Delirium is a rapidly growing problem throughout ICUs everywhere and usually is associated with longer hospital stays and a worse prognosis, university officials said.

A pilot study, led by Clemson School of Nursing assistant professor John Whitcomb, and recently published in the journal Dimensions of Critical Care Nursing, focused on lack of sleep and the development of delirium and identifying environmental factors that possibly contribute to the syndrome, university officials said.

The pilot study consisted of seven new patients, aged 65 years or older, who were intubated and sedated and observed for one to seven nights depending on their length of stay in the ICU.

“The goal of our research was to determine the relationship between these variables using a sleep monitor to capture actual sleep activity compared with patient characteristics and real-time activity in the ICU environment,” Whitcomb said.

The results show that there is a relationship between sedation, lack of rapid eye movement sleep and delirium, and the need to further investigate with larger studies.
According to the researchers, it appears that the leading causes of delirium are related to sleep deprivation and the excessive use of sedatives, based on neurological tests and cognitive evaluations performed to assess for delirium.

“We recommend new protocols related to better utilization of sedation and environmental control in the ICU to better control levels of delirium,” Whitcomb said.

“The results have also brought to light the need for nurses to be trained in the ability to screen and identify delirium in patients.”

The study also identified the need to monitor and limit patient interaction during nighttime hours to decrease the rates of delirium in ICUs.

The researchers advocate for promoting sleep in adult ICU patients by optimizing patients’ environments, using strategies to control light and noise, clustering patient-care activities and decreasing stimuli at night to protect patients’ sleep cycle.

The pilot study was developed within Creative Inquiry, Clemson’s program of undergraduate research, where students take on problems that spring from their own curiosity, from a professor’s challenge or from the pressing needs of the world around them.

Team-based investigations are led by a faculty member and typically span two to four semesters.
Clemson study links poor sleep quality to delirium | The Greenville News | greenvilleonline.com

http://www.greenvilleonline.com/article/20140217/NEWS/302170020