ACTIVE SLEEP PROMOTION IN THE CTICU
Allen Cadavero, PhD, RN, Myra Ellis, MSN, RN, Heather Pena, BSN, RN, Debra Farrell, RN, Duke University Hospital

PURPOSE
This purpose of this project was to evaluate an integrated strategy to actively promote sleep in patients in a CTICU. A multidisciplinary sleep guideline was developed to create a patient-centered environment that maximizes opportunities to promote sleep and rest. Practices addressed by the guideline were keeping the patient care environment quiet at night, clustering nursing care to minimize disruption, and scheduling patient care activities during awake times instead of prioritizing nursing convenience. Three goals of the project were to:

• Create a patient-centered environment that maximizes opportunities to promote sleep and rest
• Implement the practice of “active sleep promotion”
• Evaluate patient satisfaction with sleep quality and noise.

BACKGROUND/SIGNIFICANCE
Hospitalized patients commonly experience poor sleep and report poor sleep quality\(^1\). Sleep is an essential biologic function that is crucial to supporting immune function and promoting recovery and restoration of health. In the presence of illness, sleep deprivation may complicate illness and impair recovery. Our unit research team identified poor sleep and its consequences as a source of patient dissatisfaction and a modifiable patient outcome.

METHOD
The team collected baseline data on unit noise, patient sleep satisfaction, and modifiable tasks that disrupt patient sleep. Prior to implementation of the new sleep guideline, staff were educated on the importance of sleep for hospitalized patients and patient barriers to sleep, and learned how to use the guideline to provide a multifaceted approach to promote quiet and sleep. Strategies to improve sleep included decreasing environmental light and noise, attention to assessing and improving sleep hygiene, and rescheduling of non-essential tasks. Patient sleep issues were discussed with the multidisciplinary team during morning rounds. Interventions included sleep hygiene items, such as ear plugs and eye masks, clustering nursing care at night, and rescheduling of non-essential tasks. Patients were educated about essential disruptions such as pain managements and reassessment. These interventions have been sustainable since implementation in 2015.

RESULTS
Prior to implementation, 39.7% (n=58/146) of patients described their sleep as adequate. After 1 year we improved to 47.7% (n=41/86) and by 3 years 64% (n=259/404) reported adequate sleep. Sleep discussions with patients were 0% at baseline, 61.1% (n=53/86) at 1 year, and 72% (n=291/404) at 3 years. These results demonstrate sustainability over a three year period. The most commonly reported barriers to sleep remain pain, nurse disturbances, and procedures.

CONCLUSIONS
Improvements in practice were achieved in areas of quietness, decreased number of night time baths, and discussing sleep with patients. The barriers to sleep cited by patients show the inherent problems in providing sleep for postoperative patients in the ICU and areas for improvement. Changing embedded practice patterns is a recursive, long-term process that requires ongoing feedback and education for staff and persistence of the interventions to achieve the stated goal. Post surgical pain continues to be a reported barrier to sleep possibly due to the nature of pain medication wearing off, not as a result of inadequate treatment of the patients pain. Educating patients on the longevity of pain medication and reasonable expectations is needed.