Background
• In an Intensive Care Unit (ICU), a patient’s sleep has been known to be interrupted every 20 minutes1
• Sleep deprivation increases sympathetic activity, weakens the immune response, suppresses respirations, heightens sensitivity to pain, reduces glucose tolerance and results in delirium2,3,4
• Sleep deprivation can lead to falls, restraints and medication administration disrupting recovery1,2

Clinical Question
• In patients hospitalized in the ICU/CVICU, does implementation of sleep interventions, compared to the standard of practice, improve perception of sleep within a two-month period?

Approach
• A HUSHH campaign was developed by a Shared Governance Committee.
• The population was established based on inclusion and exclusion criteria:
  - Inclusion
  - Greater than 24 hours since admission
  - Able to verbally discuss how they slept at night
  - Clinically stable allowing physical assessments to be every 4 hours and vital signs to be remotely obtained
• Exclusion
  - Patients with psychiatric, alcohol/drug withdrawal, and neurological disorders

Approach Continued
• Patients that met criteria were observed hourly by night shift nurses to promote safety
• Patients were asked using a Likert scale of 1-5 to identify sleep quality
• Patients were asked what could improve their sleep
• Data was collected for two months to identify patients’ sleep perception

Implementation Plan
• All ICU nurses were educated on interventions to improve sleep including cluster of care, dimming lights, offering earplugs, minimizing hallway conversations, adjusting medication times, and avoiding interruptions between 00:00 and 04:00 AM
• Night shift nurses provided hygiene prior to 00:00, toileted patients after 04:00, then encouraged patients to return to sleep
• Day shift nurses promoted the sleep/awake cycle, placed a HUSHH sign on the patient’s door, and asked how they slept
• Interdisciplinary involvement was coordinated with respiratory therapy, radiology, and lab
• After two months, patients receiving sleep interventions were asked the same questions

Results
• A total of 207 questionnaires were completed pre-implementation and 221 post-implementation
• The percentage of Likert 4’s and 5’s demonstrating improved sleep:
  - ICU changed from 57% to 80%
  - CVICU changed from 57% to 78%
• Patient comments on what could have improved their sleep included:
  - Medications for pain/sleep
  - Assisting with anxiety
  - Decreasing noise
  - A more comfortable bed/pillow
• Fourteen patients reported the need for less interruptions pre-implementation and only two patients reported this post-implementation

Conclusions
• The need for sleep is often overlooked in the hospital setting
• Sleep deprivation may result in physical decline and impaired safety
• A HUSHH campaign to address sleep deprivation can improve the patient’s perception of sleep
• Limitations:
  - Unmatched pairs as pre-data patients were not the same post-data patients
  - Interventions varied based on patient needs which did not distinguish what was successful versus unsuccessful

Implications for Practice
• Multiple interventions and an interdisciplinary approach are needed to improve sleep
• The ICU and CVICU continues to utilize interventions to promote sleep
• The HUSHH process is now the standard practice in the ICU and CVICU
• Nurses determine if patients are a candidate for HUSHH measures in change-of-shift report
• For appropriate patients, a HUSHH sign remains outside of doors specifying times for sleep
• Future research could concentrate on the specific delirium outcomes when sleep was measurably improved

References