Effect of modifiable hospital factors on inpatient sleep quality and use of sleep medications

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Introduction

Sleep in hospital has been shown to be significantly shorter in duration, greater in nocturnal awakenings, and worse in quality compared to sleep at home. Poor sleep in hospitalized patients has been linked to poor health outcomes. Sleep affects pain tolerance, healing time, mentation, cognition and has long-term impacts on function, which is especially important in maintaining independence in the elderly. It has previously been recommended in the nursing's Choosing Wisely campaign to decrease nighttime care, but we have poor interventions to target this.

Methods

The objective of this quality improvement study is to evaluate the effect of modifiable hospital factors on inpatient sleep quality and the use of sleep medications. Specifically, we will evaluate the effect of nursing and physician education on evidence-based methods to help improve sleep and minimize nighttime sleep interruptions. We will conduct a quality improvement project at the Providence Care Hospital inpatient geriatric rehabilitation unit specifically to evaluate quality of sleep in the elderly population. We will obtain baseline sleep quality data via chart review and brief patient questionnaire to identify nighttime medications ordered and given, number of interruptions overnight including vitals signs and blood work, and perceived quality of sleep as documented by nursing staff compared with patient self-report. We will also ask physicians and nurses to complete a questionnaire as part of the educational session they will be invited to attend, to see if education has an impact on subsequent patient sleep quality indicators. The education session will review the consequences of sleep deprivation and encourage implementation of evidence-based methods to help improve sleep. We will then evaluate post-implementation results through chart review and repeat questionnaire to characterize the effect of our implementation on inpatient sleep.

Results

TBD

Discussion

Improvement of inpatient sleep can reduce polypharmacy, daytime drowsiness, hospital stay, and improve health outcomes and function in older adults in a cost-effective manner.