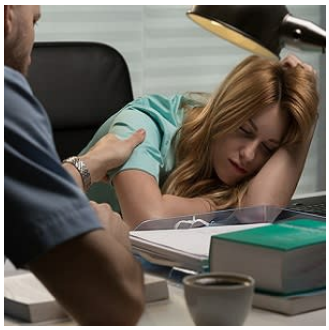
ICU
MANAGEMENT & PRACTICE

Nighttime Intensivist Staffing



The work hours and sleep schedules of physicians who have completed training have seldom been studied. But there is ample evidence that suggests that sleep deprivation can cause errors in decision-making even in easy and familiar circumstances. Keeping in mind that the critical care setting is usually quite stressful, long working hours and sleep deprivation can increase the likelihood of errors.

The fact is that critical care patients usually have extreme and immediate needs. Also, there is very little room for error when managing these patients. Critical care physicians are often in situations where they need to take urgent decisions and initiate unpredictable procedures. There is also the additional task of communicating and coordinating with caregivers. All these factors increase the obligations of critical care physicians and also increase the risk of burnout and job satisfaction.

The Study to Understand Night-time Staffing Effectiveness in a Tertiary Care ICU (SUNSET-ICU) trial was conducted where sleep, work, and behaviour alertness in faculty and fellows were measured and a comparative analysis was performed between in-hospital night-time faculty staffing versus standard daytime intensivist model. The primary outcome of the study was total sleep time measured by actigraphy and sleep logs. Secondary outcomes include work hours, sleep, and behavioural vigilance.

Results of the study showed that faculty and fellows work long hours each week irrespective of night-time intensivist staffing. In the intervention model, fellows worked only 45 minutes less per day. Faculty work hours did not change. There was a modest increase in daily sleep time (approximately 20 minutes for faculty and 45 minutes for fellows) in the night-time intensivist model. While these durations seem small, they were also accompanied by other improvements in the overall well-being, alertness, sleepiness and physical exhaustion levels of faculty and fellows.

No significant changes in cognitive performance or motor function were detected. But that's understandable keeping in mind that there is generally a fragmented sleep pattern in the ICU. Morning work demands are significantly higher, and also critical care doctors are used to functioning in a stressful and sleep deprived environment. That is why the effects on cognitive performance or motor function were not that significant. It does not mean that their overall well-being is not affected.

Overall, these findings demonstrate that a change in staffing models from a daytime intensivist model with a fellow or faculty member available by phone at night compared to a daytime intensivist model with a separate in-hospital night-time intensivist was associated with a reduction in fellow work hours and a modest increase in sleep duration. However, there is a need to further examine and discuss ICU staffing models to help reduce workforce strain and burnout among critical care physicians.

Source: Critical Care Medicine
Image Credit: iStock

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