
Conclusion: evidence strongly suggests that extended-duration work shifts increase fatigue and impair performance and safety. To reduce the unacceptably high rate of preventable fatigue-related medical error and injuries among health care workers, the United States must establish and enforce safe work-hour limits.

Landrigan et al. Effects of the Accreditation Council for Graduate Medical Education Duty Hour Limits on Sleep, Work Hours, and Safety Pediatrics 2008; 122;250-258

Conclusions: In 3 pediatric centers, implementation of the ACGME duty hour standards did not change total work or sleep hours, medical error rates, occupational injury rates, or resident educational experiences. More effective policies are needed to reduce fatigue related injuries and errors.


Conclusions: Fatigue and sleep deprivation cause a significant deterioration in the surgical residents' cognitive skills as measured by virtual reality simulation. Psychomotor skills are also negatively impacted during tasks that require a combination of psychomotor and cognitive skills.


Conclusions: Call-associated fatigue is associated with increased error rates in the cognitive skill domain, although less so in attending surgeons compared with their resident counterparts.

Landrigan et al. Effect of Reducing Interns’ Work Hours on Serious Medical Errors in Intensive Care Units New England Journal of Medicine Oct 2004

Conclusions: Interns make substantially more serious medical errors when they worked frequent shifts of 24 hours or more that when they worked shorter shifts. Eliminating extended work shifts and reducing the number of hours interns work per week can reduce serious medical errors in the intensive care unit.

Conclusions: Eliminating interns’ extended work shifts in an intensive care unit significantly increased sleep and decreased attentional failure during night work hours


Conclusions: The findings suggest that physician burnout has an impact on patient outcomes. It suggests that organizations that take proactive steps to reduce burnout through system wide intervention programs will see greater benefits in terms of patient satisfaction and recovery.

Shanafelt et al  Burnout and Self-Reported Patient Care in an Internal Medicine Residency Program  Ann Intern Med  2002

Conclusions: Burnout was common among resident physicians and was associated with self-reported suboptimal patient care practices