EFFECT OF ACGME WORK HOUR RESTRICTIONS ON PATIENT OUTCOMES AND RESIDENT WELL-BEING

JAKE STEVEN ENOS, GREGORY MICHAEL GAHN, NICHOLAS RAMON VARGAS
UNIVERSITY OF NEVADA, RENO, SCHOOL OF MEDICINE

INTRODUCTION

The term “resident” is an ode to the fact that newly graduated doctors worked such long hours that they essentially resided in the hospital. This was a common practice in the U.S. which remained largely unchanged until the death of a New York college student in 1987.1 Their death was caused by the administration of an incorrect medication by a fatigued resident which led to a fatal drug interaction. This event brought forward the notion that overworked residents could cause medical errors leading to adverse patient outcomes. In 2003, the Accreditation Council for Graduate Medical Education (ACGME) put into effect regulations that prevented residents from working more than 80 hours per week and limited shift durations as well as required time off between shifts.2 In 2011, stricter revisions were enacted which prevented PGY1 residents from working more than 16 continuous hours.3 By July 2017, new regulations will loosen the hour restrictions allowing residents to remain in the hospital over their scheduled work period. They will be allowed to clock in more than 80hrs per week as long as the average over a 4-week period is less than 80hrs. Additionally, PGY1 residents will no longer be restricted to 16 hour shifts and will be permitted to work up to 24 continuous hours.4 Our literary review investigates the impact of resident hour regulations on patient outcomes and looks to provide context in which to evaluate the new ACGME rules going into effect in July of 2017.

QUESTION AND PICO

In patients at academic hospitals, do increased resident work hour restrictions vs. no restrictions change patient outcomes and resident wellness?

P: Patients at academic hospitals
I: Increased resident work hour restrictions
C: No restrictions
O: Patient outcomes and resident wellness

LITERATURE SEARCH

A literature search was performed using the PubMed database. The initial search terms included “residents”, “80 work week”, and “patient outcomes”. The search was limited to randomized control trials, systematic reviews, clinical studies, and meta-analyses. Additionally, the search was limited to articles published within the last ten years. The search resulted in a total of 89 articles. Articles were chosen for this review based on their relevance, publication date, and strength of the scientific research. Additional articles were found using the references of the selected articles.

The ACGME’s most recent guidelines regarding resident work hour restrictions places an emphasis on allowing residents to utilize work hour flexibility in a manner that will optimize patient safety, resident education, and resident well-being.5 These guidelines are set to eliminate the 16 continuous hour cap and move towards a flexible model that maintains the 80 hour work week maximum. Data from randomized control trials, systematic reviews, and cohort studies demonstrate that resident work hour restrictions that set an 80 hour work week maximum resulted in modest, statistically significant improvements in patient outcomes. Similarly, data from studies that examined the effects of the 16 continuous hours program imposed by the 2011 ACGME guidelines have shown no statistical significance between rates of patient mortality and resident wellness.

The recent ACGME’s guidelines, and much of the literature surrounding the effects of resident work hour restrictions on patient safety and resident wellness, can be viewed as a result of previous programs maintaining longer resident work weeks and more flexible work days that may ultimately result in residents working longer hours. This has been shown to be safe, feasible, and allows residents to optimize their education by preventing them from leaving the middle of surgeries, and improve patient safety by providing patients with greater continuity of care. Alternatively, this data can be used to suggest that resident work hours restrictions result in similar patient outcomes and that work hour restrictions should be extended even further in an effort to focus on improving resident wellness. With the continued increase in concerns over depression and other mental health problems during physician training, increased work restrictions may result in improved wellness and lower rates of mental health problems. Further research is needed to elucidate the effects of increased restrictions on the mental health of residents and if further restrictions have any effect of patient outcomes.

REFERENCES