Duh'ZZs and PayTients – hOur Duty

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The practice of medicine is ever evolving. Improving how we care for our patients and educate the next generation of physicians is a core value of modern medicine. In this pursuit, a concern regarding supervision, fatigue and medical errors has arisen. In 1984, the death of 18-year-old Libby Zion brought great attention to this issue. To help address the concerns that this tragedy brought to light, New York State formed the Bell Commission and issued guidelines regulating resident supervision and duty hours. In 2003, under growing congressional pressure, the Accreditation Council for Graduate Medical Education (ACGME) issued nationwide regulations regarding resident duty hours. Since their inception, many people have examined the impact of these rules by the Bell Commission and the ACGME on resident oversight, fatigue, and patient safety[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14]. At the request of Congress and under contract of the Agency for Healthcare Research and Quality (AHRQ), the Institute of Medicine (IOM) formed a consensus committee to "1) synthesize current evidence on medical resident schedules and healthcare safety, and 2) develop strategies to enable optimization of work schedules to improve safety in the healthcare work environment. The strategies recommended will take into account the learning and experience that residents must achieve during their training. The recommendations will be structured to optimize both the quality of care and the educational objectives."[15]

In summary, the IOM consensus committee now recommends the following:

- Maximum duty hours of 80 hours a week averaged over 4 weeks;
- No shift longer than 30 hours (direct patient care for up to 16 hours, plus protected sleep period of 5 hours with remaining time for transition and education);
- Maximum call schedule of every third night (no averaging);
- Minimum time off between shifts of 10 hours after a day shift, 12 hours after a night shift, and 14 hours after an extended duty shift;
- Maximum of 4 consecutive in-hospital night shifts;
- Mandatory 5 days off per month with 1 day off per week (no averaging) and one 48 hour period off each month;
- All moonlighting counts toward the work hour limits and is restricted to above duty hour guidelines.

In response to these recommendations, we ask that you consider the phrase "Duh'ZZs and PayTients – hOur Duty."

Duh'

It is a given that graduate medical education needs to adapt, but consideration of the latest recommendations by the IOM should make one take pause. The IOM recognizes that any change made needs to be well thought out. To accomplish this the IOM has reviewed countless studies and interviews assessing the effectiveness of the first 5 years of the ACGME duty hour guidelines. Many of these findings are limited by poor study design and small sample size in an environment that penalized accurate

documentation of violations of duty hours[3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24]. In their 480 page consensus statement, the IOM acknowledge the following concerns: that the ACGME reports at least 8.8% of programs were non-compliant; there are 26 types of residency specialties with different needs; some training programs may need to lengthen residency training to become compliant with duty hour guidelines; resident caseload has increased; the cost of implementing their guidelines could cost approximately $1.7 billion; and there has been a lack of any comprehensive attempt to document changes in residency programs and their impact on educational outcomes and patient safety since the implementation of the ACGME duty hour rules[15].

ZZ's

The implementation of the 80-hour work rules by the state of New York in 1989 sought to optimize patient care and supervision of residents. Their initial focus was not on duty hours, but instead on supervision. Since that time an intense debate has developed over the efficacy of duty hour regulations. The IOM has now issued further recommendations augmenting the current 80-hour duty rules. This decision by the IOM seems to be narrowly focused on studies that have demonstrated the real dangers posed by a fatigued physician or trainee who is not functioning at their best. But what about factors other than fatigue? Do we know what effect reduced duty hours will have on physician workload, distractions, shortcuts, and medical errors? Is a better-rested physician with high workload better than a physician who has worked longer hours with the support of more colleagues? It can be argued that we do not know that answer. Just as a fatigued or drunk driver is a hazard, it is doubtful that a driver distracted with text messaging while eating their breakfast would be any safer.

Disease

Graduate medical education, at its core, is little more than a clinical apprenticeship. It is through constant contact with patient care, under a master's supervision, that the next generation of physicians learns their craft[10, 16, 17, 21, 23, 25]. If we arbitrarily and uniformly limit the hours that a trainee can experience this mentoring, then will we have to prolong the duration of residency or require new fellowships for general practice? Already we see the emergence of general academic fellowships and hospitalist fellowships. These fellowships may be a response to the concern that recent residency graduates have reduced clinical skill sets. All medical trainees are adult learners, and as such have varyied learning styles. Therefore it is likely that some trainees learn better by doing, listening, viewing, or reading. Some learn faster, and some learn more slowly. Is it then ideal to mandate limits on the hours one can spend learning? Are these limits appropriate for all levels of trainees in all specialties at all times during their training? Would it be better to allow for some flexibility in the system for trainees to select the programs that are best suited to them, and for programs to adjust their teaching styles and clinical demands to best meet the needs of their learners and their patients? Even though we do not know the answer, yet, is it not worth asking the questions and seeking the answers before we act?

Pay

For good or bad, most everything in our society comes down to money. If the IOM mandates that their current recommendations be implemented, the financial burden could be staggering. A report by Iglehart suggested that compliance with these recommendations would require the addition of up to 5984 mid-level providers, 5001 attendings, or 8247 additional residents[4]. By the IOM's calculations, these costs could be as high as 1.7 billion dollars. Even if we were not in the midst of this current fiscal crisis, it is doubtful that our health care system could support such an additional obligation. If we cannot afford this cost, would we then be forced to close down certain training programs and put the populations that they serve at unintended risk? Or would our trainees, who are already saddled with over $150,000 of education debt[26], likely be required to take a reduction in compensation for services as an attending? How would this increased financial burden affect those considering medicine as a profession? Or would these expenses just be passed on to our patients?

Patients

What about our patients? The IOM's goal with their recommendations is to provide patients with better care through improved training and performance of physicians. But will these rules achieve this goal? Currently, there are no duty hour limitations for an attending, only trainees. Does this mean that attendings are as infallible as most trainees believe them to be? But what if becoming an attending does not make a physician infallible? What lessons are we teaching the next generation about professionalism and work ethic by imposing arbitrary hourly limitations? The IOM duty hour guidelines may create an increased tendency for physicians to expect to work according to a schedule rather than to a patient's needs. Currently, those disciplines that do revolve around a shift schedule still have providers who will stay the extra time to assure their patient's needs are met and who are not penalized for caring about them. Will this be so in the future? Creating more shift-like schedules increases the number of physician hand-offs and limits the continuity of care. In addition, further limitation of duty hours is bound to affect outpatient clinic schedules; shifting patients from those with whom they have a bond, to someone new. Could this reduction of direct patient knowledge and continuity of care lead to sub-optimal treatment of the patient? Shouldn't we take the time to find out?

Patience

The IOM's recommendations may be the best plan to improve our medical training system, but they may have looked only narrowly at the identified problems, and failed to give additional thought to the problems that could arise from these changes. For a new drug to come to the market it needs extensive testing, and even with that testing harm from its use can still occur. Take Vioxx, as just one example. Have the recommendations of the IOM gone through sufficient testing to be broadly and uniformly applied to all trainees, training programs, disciplines, and their patients? To develop potential recommendations we need to foster creativity, structure independence, and secure funding to find the answers. Would not a prospective study of multiple strategies seem a more prudent approach to accommodate the varied nature of medicine and

medical education before making a decision based on somewhat inconsistent data? The use of the scientific method to examine the issues of sleep versus workload and education versus apprenticeship would minimize initial costs and generate a better set of data with which to make a more informed decision. Those in decision-making positions should exercise patience, seek answers, and utilize better data to help us to develop the best healthcare system in the world.

Our Duty

The issue of duty hour regulations in medical training has strong opinions on both sides. The improvement of physician education and clinical performance requires the practice of evidence-based medicine. Therefore, it is our duty to think about these issues, review the literature, contact our former training programs, and share our opinion with our state medical board, specialty board, local congressmen, federal legislators, and the ACGME.

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Simply stated, this is a huge issue. The IOM, with its new duty hour recommendations, is trying to make positive changes in the training of medical professionals and in assuring patient safety. As medical professionals, in training or recently trained, we have unique insight into how we perceive our graduate medical education, how it will or has prepared us for our careers and how this process could be changed for the better. Thus, we are, in part, responsible for assuring that further changes to this system truly produce a positive impact on education and patient care. The more people that reflect on strategies to improve this educational process and provide constructive comments, the more likely our medical system will evolve in a positive direction towards improving patient care and optimizing medical education.

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