When we consider the challenges facing academic medicine today, none seems more pressing than negotiating the balance between supervision and autonomy of trainees. As a result of recent duty hour restrictions for residents, many programs have instituted “24/7” attending physician coverage models, thereby increasing the amount of time during which residents have direct faculty supervision. Proponents of increased supervision espouse the primary importance of patient safety, citing the most recent iteration of the Accreditation Council for Graduate Medical Education task force recommendation on duty hours and its call for increased supervision of residents, particularly in the first year of training. Less-often mentioned, however, is that these guidelines also “affirm the responsibility of faculty to make sure that residents are prepared for the independent practice of medicine” and propose that “senior residents or fellows should serve in a supervisory role for junior residents.” It seems to us that 24/7 attending coverage models, while certainly increasing supervision, may impinge on these last 2 aims. How is one to prepare a resident for independent practice while implementing a system whereby that resident is granted less autonomy? Similarly, how are senior residents and fellows to learn the crucial skill of supervision, if they are being overstepped in the process by a more senior physician?

This debate is often framed as a choice between increased supervision and patient safety or increased resident autonomy and resultant patient harm. On one side is the argument that trainees need more supervision, thereby preventing mistakes that occur early in a career. Some evidence seems to show that more mistakes do happen when trainees are at the beginning of their practice of medicine. Proponents of this side of the argument cite studies reporting that increased overnight supervision led to residents reporting higher educational value without a perceived decrease in autonomy. A weakness of this argument, however, is that while evidence of patient harm in less supervised settings is clearly an important outcome to consider, residents’ perception of autonomy probably is not. There is no escaping the fact that going from working alone overnight to working supervised by an in-house attending clearly brings a decrease in autonomy, regardless of whether it feels that way. Another weakness of this argument is that autonomy is viewed as an end in itself, rather than a tool. Just as education regarding pathology and treatment is a tool to increase medical knowledge and thereby improve outcomes, autonomy should also be viewed as a tool. Autonomy allows residents to learn the skills necessary to find information when there is nobody more senior immediately available to ask and to enact care plans based on their findings and thoughts rather than always first discussing their plans with a supervisor. These

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2 skills are crucial to the practice of medicine and are neither discussed nor measured in much of the current literature. Evidence against this argument was demonstrated by Kerlin et al when they showed that having an attending physically present overnight (compared with reachable by telephone) did not improve patient outcomes.

On the other side is the argument that progressive autonomy always has been, and should continue to be, a hallmark of residency training. This point of view is usually accompanied by quotes such as, “Call nights are where doctors are made” and “I’ll never forget this one time when I was alone and this really sick kid came in....” The crux of this argument is that only by progressive autonomy can residents be trained to be independent practitioners in the future. The concern on this side is nicely articulated by Kerlin and Halpern, who stated, “If increased supervision leads to a more passive role for trainees, fewer opportunities to make decisions, and a reduced sense of personal responsibility for patients’ welfare, greater supervision today could reduce the quality of the physician workforce tomorrow.”

A weakness of this line of reasoning is that it is mostly based on anecdotal experience and largely unsupported by data. It is worth noting, however, that no great residency story begins with “I’ll never forget this one time when a really sick patient came in and then I talked to my attending about it and she told me what to do.”

We feel that this all-or-nothing response to the question misses the point. A matter this important requires a more nuanced approach. It is likely that supervision and autonomy are both beneficial and have their place in modern medical education. This viewpoint was eloquently summed up by Hinchey and Rothberg when they wrote, “Supervision assures the quality of present patient care. Autonomy ensures the future of quality patient care.” If patient care is always provided by the “best” practitioner (most evidence-based, most experienced), the immediate effect will be excellent patient care. The downstream consequence, however, may be the gradual attrition of physician competence. We view the provision of autonomy as an investment in the future of health care.

This ongoing debate over how to balance supervision and patient safety with trainee autonomy brings to mind the old axiom, “You can’t make an omelet without breaking some eggs.” Before the collective shudder that’s bound to come from the inference that if the trainees are the omelet, then the patients are the eggs, allow us to explain. This culinary metaphor reminds us that all great accomplishments come with associated costs. To give residents any real autonomy, they will sometimes be placed in situations in which they can make mistakes. Attempts to completely avoid this possibility will necessarily result in the removal of autonomy in any true sense of the term. To clarify, we are not advocating that residents be put in situations in which they can harm patients. Autonomy is not the same as total independence. By implementing a practice of graduated autonomy, we can support trainees in their growth toward independent practice by allowing them to make mistakes while minimizing patient harm.

But what about the mistakes? As with all human endeavors, mistakes are inevitably and unfortunately a part of the practice of medicine. Due to the nature of the work, mistakes can have devastating consequences, and our acknowledgment of their inevitability is in no way an attempt to shirk this responsibility. Anyone who has made a mistake in the practice of medicine (and we imagine this is all of us) knows the emotional roller coaster one is put through when the mistake comes to light. It is a concoction of profound sadness, regret, and shame that tends to linger for some time. Equally profound, however, is the education one comes away with from each mistake. The learning that accompanies the realization of a mistake seems to be unmatched in all other educational venues. Mistakes, and their consequences, are not uniform, and the setting in which they occur can greatly influence the outcome. For example, imagine a resident admitting on the wards overnight. Through autonomous practice, he admits a patient, makes a diagnosis, and initiates treatment of a condition in discussion with his senior resident. The next morning, his attending comes to work, sees the patient and realizes that the diagnosis and subsequent treatment were incorrect. The resident is shown the error of his ways, learns a profound lesson, and will likely never make that mistake again. Regarding the error, an incorrect diagnosis and treatment were in play for a short time with minimal, if any, negative consequences occurring. In addition, because this mistake was made in an educational setting, it can serve as an opportunity for teaching by the attending. Imagine that same physician, not having had the chance to make that mistake through autonomous practice as a resident, is now working as an attending. A
similar mistake made at this point may not have the benefit of a second pair of eyes <1 day later. This error may be in play for days, with much larger and more devastating consequences. In addition, if this physician does not have the benefit of a colleague or supervisor to provide education regarding this error, it is likely he will continue to jeopardize patients.

Ultimately, we feel the chance to make these “supervised mistakes” is a crucially important part of residency training. Contrary to other errors, the supervised mistakes of residents have the potential to be hugely educational through feedback while at the same time minimizing the risk of adverse outcomes to patients by having the safety net of timely correction. We feel it is these learning opportunities that make autonomy such an important piece in the medical educator’s toolkit.

As mentioned earlier, we recognize that this argument is largely speculative and that, to our knowledge, the literature necessary to support these claims does not exist. The requisite study would look something like a longitudinal investigation, first quantifying autonomy during residency and then following up both physician comfort and patient outcomes once in independent practice. Until the time when this hugely ambitious study is completed, our recommended approach is twofold: First, we need to strongly consider the potential ramifications of 24-hour attending in-house staffing if it is implemented without careful attention to define, and then train faculty to fulfill, that role. Specific consideration, planning, and faculty development initiatives should be implemented to carefully balance patient safety and resident autonomy on these night shifts. The literature on outcomes after implementation of duty hour regulations can serve as a cautionary tale of what happens when changes are legislated without the backing of study and sound evidence. Second, we should consider ways to explicitly include autonomy in residency education in ways that are both safe and productive. One study of an implemented autonomy curriculum in internal medicine has shown impressive results. This residency program modified its training structure so that second-year residents were not responsible for supervising interns. Doing so allowed the second-year residents to focus solely on patient care with increased autonomy and responsibility while having a supervising attending for safety and backup. Recently, a pediatric training program has proposed a specific novel curriculum to enhance resident autonomy that is truly refreshing. This proposed curriculum takes a holistic approach to increasing autonomy, explicitly integrating it as a topic of grand rounds, morning report, and faculty development.

We realize that what constitutes “appropriate supervision” is subjective and likely varies by supervisor and trainee. Our aim is not to provide specific recommendations but to serve as a catalyst for a larger discussion on these issues. We must take a long look at where our field is headed and what the outcomes will be of changes made hastily and without consideration for future effects. We must do so before the day comes when we sit down hungry for breakfast and are served a perfectly-cared-for egg, still raw and in its shell.

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