

# Medical On-Call Shifts: Are They Still Effective in Medical Training?



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On-call shifts have been considered an essential component of medical training since the twentieth century, as they provide comprehensive experience within a clinical environment.<sup>1</sup> In Mexico, after completing six to seven years of professional education, including undergraduate internship, many physicians choose to pursue a specialty. According to the parameters established by NOM-001-SSA-2023,<sup>2</sup> work schedules may extend up to 80 hours per week with on-call shifts twice a week. However, these limits are often not respected, and the number of hours spent in the hospital by residents—or even undergraduate medical interns—may be significantly prolonged.

Clinical practice in hospitals or health centers provides physicians and students with a vital opportunity to communicate with patients and their families, as well as to work alongside various healthcare professionals, while also ensuring 24-hour healthcare coverage for the population.<sup>3</sup> It contributes to the development of clinical decision-making, the performance of procedures such as intubation, cardiopulmonary resuscitation, and medication administration through different routes, and the selection of treatments that directly impact patient well-being.<sup>3,4</sup> However, in recent years, a debate has emerged regarding whether medical on-call shifts truly enhance learning or whether, on the contrary, they represent an outdated teaching method that negatively affects the physical and mental health of students.

Prolonged on-call shifts can lead students to experience burnout, defined as a state of physical, mental, and emotional exhaustion caused by chronic work-related stress.<sup>5</sup> Additionally, decreased sleep quality reduces students' levels of attention, impairing both the learning process and patient care.<sup>5</sup> Furthermore, for an on-call shift to be effective, proper supervision and guided learning are essential. However, due to the fast-paced and constantly changing nature of the healthcare setting, the time dedicated to each intern or resident is often insufficient to provide the feedback necessary for meaningful learning.<sup>6</sup>

It must also be considered that in academic evaluations—such as examinations for entry into a medical specialty or professional certification—there is often insufficient time to study scientific foundations, review updated clinical practice guidelines, or stay current with new surgical techniques, relevant discoveries, or emerging treatments, particularly when work schedules fail to prioritize these activities as essential to ensuring optimal patient care.

Under inadequate conditions, the responsibilities assigned to residents—whose role lies somewhere between that of a worker and a student—may lead to allegations of medical negligence, placing patients, residents' professional reputations, and healthcare institutions at risk.<sup>5</sup>

It is therefore necessary to prioritize both physical and mental rest and integrity for undergraduate medical interns and residents, as well as to assign responsibilities appropriately according to each professional's level of training and specialization.

There is no doubt that working in a clinical environment provides a comprehensive educational experience for any medical student or physician in training. However, this should not come at the expense of healthcare professionals' physical or mental health, nor should it compromise the delivery of complete and up-to-date medical care. The problems associated with extended on-call shifts cannot be examined in isolation without acknowledging that the current healthcare system faces crises related to shortages of supplies, inadequate infrastructure, and insufficient staffing. This is therefore a systemic issue that does not depend solely on a single institution or individual, but rather on national health authorities.



*C.21.1. Burnout involves physical and mental exhaustion.*

Medicine is a constantly evolving science, marked by ongoing innovations as well as emerging challenges. Practices that were once considered standard may no longer be the most appropriate for today's society or for the education of physicians in training. For this reason, it is essential to critically examine how medical on-call shifts are structured, in order to preserve their educational benefits while eliminating practices that undermine learning and well-being.



*C.21.2. Medical training evolves over time; it is important to re-evaluate teaching methods.*