Factors Associated With General Surgery Residents’ Operative Experience During the COVID-19 Pandemic

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Numerous articles, lectures, and commentaries have debated the importance of and requirements regarding operative experience and competence of surgical residents.1 The authors of “Factors Associated With General Surgery Residents’ Operative Experience During the COVID-19 Pandemic”2 expertly point out the negative effect of the COVID-19 pandemic on general surgery resident operative experience, identify case volume differences between level I trauma and nontrauma centers during the pandemic, and highlight important mitigation strategies.2 Graduating residents and those in surgical education have been concerned about the surgical skills of residents and their ability to operate independently. The COVID-19 pandemic has undoubtedly had a negative effect on the operative volumes of current residents leading to the question, will competency be negatively affected by this decrease in experience?

Surgical training requirements have evolved throughout the past 30 years. The American Board of Surgery has increased the total and chief year case volume requirements (decreased during the pandemic) and has required residents to obtain more operative experience early in their residency. However, accuracy of case logs is inconsistent and has even been characterized as sometimes inaccurate.3 Furthermore, the assumption that a resident who has achieved the minimum numbers and fulfilled all the defined categories should be safe and competent to practice independently has been challenged.

Programs are increasingly using entrustable professional activities to qualitatively assess residents’ progress toward independent practice. These have the benefit of competency-based curricula and fostering graded autonomy, particularly for senior resident physicians.4 This reinforces a particularly important need for us as surgical educators to give timely, focused, and specific feedback to residents about their strengths and weaknesses, particularly in the operating room. It also reinforces that we need to do better as a community about delineating the exact operative skills that constitute a safe, competent surgeon. It is critically important that we improve at granting autonomy to residents and do so earlier in their training.

The authors also demonstrate how the pandemic highlighted that surgical training programs face unique challenges identifying strategies to overcome the preexisting and pandemic-exacerbated decrease in operative experience and autonomy of modern surgery resident physicians. Programs have increased their virtual didactic curriculums, used telehealth to augment clinical training, and increasingly relied on simulation to supplant the loss of operative volume and clinical experience. All of these can and should be continued after the pandemic has abated.

Finally, some consideration should be given to individualize training paradigms based on the resident. Some residents take longer to achieve operative proficiency despite adequate case volumes. Ultimately, if our current training paradigm does not lead to consistent and reproducible confirmation of the competency of residents, our educational model must continue to shift from time-based to competency-based focusing on minimum acceptable performance levels.