Surgeon experience not associated with survival among trauma patients in a structured trauma program

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Within a structured trauma program, trauma patients are equally likely to survive if they are treated by a novice surgeon or by the experienced trauma director, according to a report in the August issue of *Archives of Surgery,* one of the JAMA/Archives journals.

"Trauma care in the United States is provided by surgeons with vastly different training and experience," the authors write as background information in the article. "It is assumed that after general surgery residency training, surgeons are competent to provide trauma care. Trauma fellowships exist for additional training in trauma surgery but are not a prerequisite at most medical centers."

One trauma facility—The Johns Hopkins Hospital in Baltimore—recruited a fellowship-trained, seasoned (more than 10 additional years of experience) trauma surgeon to serve as the trauma program director. Previously, trauma surgery was principally the responsibility of junior first-year surgical attending surgeons. Elliott R. Haut, M.D., of The Johns Hopkins University School of Medicine, and colleagues studied trauma deaths among 13,894 patients over a 10-year period, before and after the director was hired and implemented structural changes, such as the use of evidence-based guidelines and the addition of a dedicated trauma admitting unit.

In the early period (July 1, 1994, to Dec. 31, 1997), 4,499 patients were

treated by novice surgeons; of the 9,395 patients in the late period (Jan. 1, 1998, to June 30, 2004), novice surgeons treated 5,783 patients and the experienced surgeon treated 3,612 patients. Overall, in the late period, concurrent comparison of patients treated by novice vs. experienced trauma surgeons demonstrated no differences in death rates between the two groups.

In the group treated by novice surgeons, trauma patients were 44 percent less likely to die after the structural changes were made than in the early period (odds ratio 0.56 in the later period vs. in the earlier period). Patients managed by novice surgeons in the later period were less likely to die than were those in the early period.

"Together, these data support the belief that in a structured trauma program, surgeons with vastly different levels of training can safely provide care and obtain equivalent outcomes," the authors conclude. "System effects outweigh any potential benefits of individual surgeon experience in the care of trauma patients. The implementation of an organized trauma program with evidence-based protocols and senior surgical guidance may have a greater effect on mortality than individual surgeon experience alone."

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