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INVITED COMMENTARY

# Utilization of a Non-preserved Cadaver to Address Deficiencies in Technical Skills during the Third Year of Medical School

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The Swedish National Board of Health and Welfare has shown that the health care system causes harm to approximately 10 % of patients during their hospital stay. In Sweden this figure translates into 100,000 patients per year. Corresponding figures are seen in most Western countries today.

The fact that procedural proficiency has become increasingly difficult to obtain for medical students is well known. Also, the same tendency can be seen among residents in surgical training, which is even more serious. In most European countries, reduced working hours (35–48 h) for younger doctors are being implemented, making overtime impossible because of work force regulations. At the same time new technologies are rapidly introduced where trainees need to acquire skills in a way that is compatible with the current training program. The health care system also puts high demands on patient safety. Therefore, to educate our younger colleagues, new teaching modes are warranted.

The transition from skills training on patients to the use of simulation for the same purpose has actually just begun and we have plenty to learn. Clinical skills centers play an important role, not only for students in any medically associated profession that requires hands-on performance but also for surgical residents and specialists. Skills training can be performed in various milieus, such as virtual, manikin based, cadavers, etc. The most important point is that the training lead to the desired objectives: greater skills, good teamwork, and the avoidance of injury to patients. Fewer injuries also means lower health care expenses.

Today our knowledge of how to use simulation in the most effective way is growing, but it needs to be further analyzed. With this in mind, we need to continue our efforts to analyze not only how the training should be performed by using the correct curriculum but also to learn when the correct time is to start training to render the optimal desired effects [1].

Cadaver training as described in the article by Kaplan et al. [2] in this issue of *World Journal of Surgery*, may in some countries be regarded as controversial for cultural and ethical reasons. In Sweden, medical students still learn anatomy using cadavers (through individual donation of organs), even though virtual training programs are now available [3]. The timing of personal skills training as well as team training is essential, and the procedure should ideally include both reactivation of skills in order to achieve both the short-term peak effect and a sustained effect over time [1].

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