Editorial Comment

The Effect of Anaesthesia Work Environment on Patient Safety

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Since the science of anaesthesia involves not only therapeutic but also preventive methods, ideal anaesthesia management should not pose any risk for patients. Therefore, patient safety is very important in anaesthesia. As a matter of fact, in a report published by the International Institute of Medicine in 1999, the science of anaesthesiology was praised as the first branch of science to initiate studies on patient safety (1).

The practice of anaesthesia requires considerable practical skill as well as a high level of medical expertise; most importantly, anaesthesia is a team work. In numerous cases, not only the expert but also the responsibility of the department and the regulatory authorities that establish the system should be considered. Therefore, the appropriate method for patient safety should often be a systemic approach. However, this does not preclude the necessity of each physician to be well-qualified and to attempt a safe approach towards a patient and for the excellence of work (2).

After defining the problems regarding patient safety in anaesthesiology, strategies have been developed to increase safety. Since the 1980s, standards and guidelines have been designed and put into practice by anaesthesiologists. The standards include issues such as patient transfer and anaesthesia work environment as well as equipment, medications, IV fluids, monitoring and anaesthesia management (3, 4).

The complication and mortality rates associated with anaesthesia are gradually decreasing with the development of technology and the use and maintenance of new drugs and standards over the years. While the rates of anaesthesia-induced mortality have decreased to 1 in 200,000 cases in the developed countries, they are reportedly 1 in 300 cases in underdeveloped countries (5). Therefore, there remains a requirement for standardisation studies.

One of the strategies to increase patient safety is to provide solutions to problems using technological methods and to use electronic security devices. Anaesthesiologists comprise the medical group that has accomplished this previously. They have become experts in the follow-up of patients with the help of both clinical follow-up and technology.

The experimental study titled 'A Pilot Project Using Eye-Tracking Technology to Design a Standardised Anaesthesia Workspace', which was published in this issue of Turkish Journal of Anaesthesia and Reanimation, is a remarkable study with original and objective results, focusing on anaesthesia workstation modelling to minimise errors that may be caused by teamwork using technology to improve patient safety.

In this experimental study, the researchers determined the locations at which anaesthetists first looked when they needed to use a specific tool or medication in anaesthesia workstations in their clinics using visual screening technology. On the basis of the objective data obtained from the visual screening results, it was stated that designing the anaesthesia workstation environment according to the common habits of anaesthesiologists would increase patient safety in each clinic. In addition, they specified that this workstation design, which could be formed by the staff of each clinic in accordance with their own habits, would reduce errors that may occur during patient transfer, and that these standards should be included in the transfer protocols.

Anaesthesia is complex by its nature and is potentially very dangerous. Therefore, its safe application requires significant practical skill as well as a high level of expertise in medical diagnosis, pharmacology, physiology and anatomy. For this reason, effective communication and teamwork among all health professionals is needed for safe anaesthesia practice. Although the model of anaesthesia administration varies from one country to another and from one clinic to another, all anaesthesiologists should be trained in accordance with a nationally recognised standard. Each anaesthesia clinic should also standardise the design of the workstations, considering the common habits of its employees (doctor, technician, nurse and auxiliary medical staff) and the priority of the work.

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