

ST4.2	Medical Simulation	10:45 Theatre 2
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Application of Simulators to Enhance the Training of Minimal Access Surgery

Tang CN

Department of Surgery, Pamela Youde Nethersole Eastern Hospital, Hong Kong

Surgical training has undergone many changes in last two decades. Traditionally, training in surgery has been based upon an apprenticeship model, with junior surgeons learning skills under the supervision of experienced surgeons in clinical setting. With the increasing number of new procedures, shortening of working hours and increasing expectation from the community to the healthcare professionals, this traditional apprenticeship model is not enough. The growing awareness of the need for patient safety and quality improvement has brought simulation-based training to the forefront.

Human and system errors are recognised causes of significant morbidity and mortality of different procedures. Technical skills encompass the medical and procedural knowledge required for patient care, while non-technical skills are behaviour-based and include task management, situation awareness, teamwork, decision-making, and leadership. Both sets of skills are required to improve patient safety and procedure quality. Simulation-based training can provide an opportunity to practice technical and non-technical skills in a patient-safe environment. Several techniques of simulation are available including artificial tissues, animal models and virtual reality computer simulation. Simulation offers the opportunity for rehearsal of various different skills in a controlled, risk-free environment, allowing for the development of mastery at a pace appropriate to the learner and offers a means for objective verification of skills.

In conclusion, the use of simulation-based training has important educational and societal advantages, and it is also a valuable tool to improve patient safety.