



# **SIMULATION IN ACUTE MEDICINE — AN OPTION OR A MUST?**

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## **D2.1 TECHNOLOGY-ENHANCED LEARNING AND TEACHING IN ACUTE MEDICINE**

**Keywords:** *virtual patient, patient simulator, acute medicine*

Medical education in general is undergoing significant shift from traditional methods (textbooks, lectures, bedside teaching) to a more comprehensive approach which includes modern ICT tools (e-learning, interactive algorithms, virtual patients, standardised patient, manequinnes, advanced patient simulators) due to space, economic, personal and clinical limitation (lack of appropriate cases etc.) of traditionally approach. The new approach has been shown to improve the learning skills of medical students and residents over traditional methods.

Anaesthesiology, intensive care and emergency medicine is a dynamic and time-pressured environment with high demands on team communication and leadership, correct clinical reasoning and often immediate decision-making. Simulation offers a good technique for training multidisciplinary medical teams, facilitating interaction among team members and enabling the team to function in an effective and coordinated manner.

## **VIRTUAL PATIENT**

The virtual patient is a software platform for the presentation and support case-based teaching and learning. There are many platforms and implementations that oscillate between a simple presentation of the software case studies and three-dimensional display of hospitals and patients in the style of Second Life worldwide.

## **BASIC AND ADVANCED PATIENT SIMULATORS**

Mechanical simulators of basic skills (peripheral/central vein or artery cannulation, tracheal intubation, regional anaesthesia application, manequinnes, etc.) are used for basic propedeutic skills training. The advanced simulators can be enriched by complex physiological models and used for complex clinical scenarios of emergency or intensive care medicine in simulation based learning.

## **STANDARDISED PATIENT**

Standardised patient is for a clinical situation masked and instructed person and forms the next step to increase the fidelity of acute situations. But it is very personnel and time requirements solution and are mainly used for one-off events and exercises.

Where can you meet simulation techniques in pre-and postgraduate teaching of acute and emergency medicine will show the following block of lectures: Technology-Enhanced Learning and Teaching in Acute Medicine.

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