

Thailand launches virtual reality tool for emergency room interprofessional education

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Allows healthcare professionals to train in a safe, virtual environment



Thailand-based Chulalongkorn University Design for Society Center (CUD4S), in collaboration with the Department of Emergency Medicine, Faculty of Medicine, Chulalongkorn University, and King Chulalongkorn Memorial Hospital of the Thai Red Cross Society, has launched the "ER-UIPE" (Emergency Room – Virtual Interprofessional Education), an innovative medical education tool.

Using virtual simulation technology, ER-UIPE is designed to train interprofessional teams—doctors, nurses, pharmacists, radiologic technologists, and more—for handling emergency patients. The goal is to improve teamwork, communication, and patient safety while minimising human errors.

Asst. Prof. Dr. Khuansiri Narajeenron, Director of Academic Affairs, Emergency Medicine Department, and Project Leader, described ER-UIPE as a "Med-Edutainment Technology" that merges:

- HEART – Inspirational film content
- HEAD – Medical knowledge via MOOC
- HAND – Interactive simulation-based gameplay

This educational design offers realistic emergency scenarios to build team-based non-technical skills using the TeamSTEPPS framework (Team Strategies and Tools to Enhance Performance and Patient Safety). It supports interprofessional collaboration (IPC) so that health professionals can communicate, make decisions, and act effectively under pressure.

- Thailand sees over 400,000 cases/year of unsafe medical care.
- Economic loss exceeds 9.6 billion baht annually.
- Globally, deaths from medical errors are 10,000 times higher than airplane crashes.

The ER-UIPE system allows healthcare professionals to train in a safe, virtual environment without endangering real patients. Participants receive feedback and performance analysis via digital tools.