

SimEPR: enabling clinical training to reflect digital transformation in the NHS

Summary

SimEPR offers a novel digital solution that allows practical clinical training to more accurately reflect the digital transformations driven by the NHS Long Term Plan.

It addresses the 'digital gap' in medical simulation training, and equips future workforce with the skills to safely and confidently use electronic patient records.

In turn, this training solution aims to optimise patient outcomes by improving the quality of practical training and reducing the incidence of electronic system-related clinical errors.

The challenge

Simulation training forms a core aspect of practical medical education that involves the use of a mannequin and hospital paraphernalia to create an acute or emergency situation. There are nearly 100 advanced simulation centres in the UK responsible for delivering NHS staff training.

While electronic systems are becoming increasingly common in healthcare settings, due to a paucity of bespoke training software, simulation departments across the UK continue to use outdated paper-based methods for training. This includes paper notes, paper drug charts and investigation results printed on paper handouts. Consequently, practical medical education is not representative of true clinical practice, and new staff complete their training with minimal experience using electronic systems in patient care.

The solution

To address this problem, Arron Thind (a GP trainee in London) created SimEPR, an educational electronic patient record that features customisable patient scenarios and is designed to be used on a computer or tablet at the mannequin's bedside.

The technology is compatible with readily available hardware and software, and realistically replicates electronic notes, drug charts, observations and clinical investigations. In addition, the interactive software offers the ability to generate electronic prescriptions, electronic documentation and request investigations that update in real-time so trainees can review the results of tests they have requested.

Being a technology that offers benefits to the quality of the simulation learning environment, whilst supporting the development of a digital workforce, SimEPR is in line with Health Education England's National Strategic Vision for the role of Simulation and Immersive Technologies in Health and Care.

Furthermore, in recognition of the benefits SimEPR offers to the NHS, the product has been supported by KSS AHSN, the NHS Clinical Entrepreneur Programme, DigitalHealth.London and LSBU's Simulation for Digital Health Accelerator.

In under two years, SimEPR has progressed from an idea to an evidence-backed product, with early traction in the UK's medical simulation training sector. The next step is to expand SimEPR across other simulation centres to allow more trainees in the London, Kent, Surrey and Sussex region to benefit from the software. Feedback will continue to be collected throughout this process to build on SimEPR's functionalities and ensure the software continues to provide optimal teaching outcomes.

Impact

SimEPR has been piloted in four simulation departments (Brighton and Sussex Medical School, Croydon University Hospital, The Royal London and East Surrey Hospital) and more recently commercial agreements have been negotiated with NHS teaching departments to licence the software longer term.

In the past year, over 100 junior doctors and medical students have used SimEPR as part of their routine simulation training. By working closely with simulation specialists in teaching hospitals, SimEPR has evolved into a truly bespoke product for medical education. This is reflected in multi-centre data, which demonstrates clear benefits to clinical training: over 80% of trainees reported that SimEPR improved their clinical learning, created a more realistic training experience and would recommend that their department continues to use SimEPR.

Contact

Arron Thind, Founder, SimEPR – arron.thind@nhs.net
Rick Fell, Head of Comms, KSS AHSN - rickfell@nhs.net