

How to use simulated electronic patient records: Pearls and pitfalls

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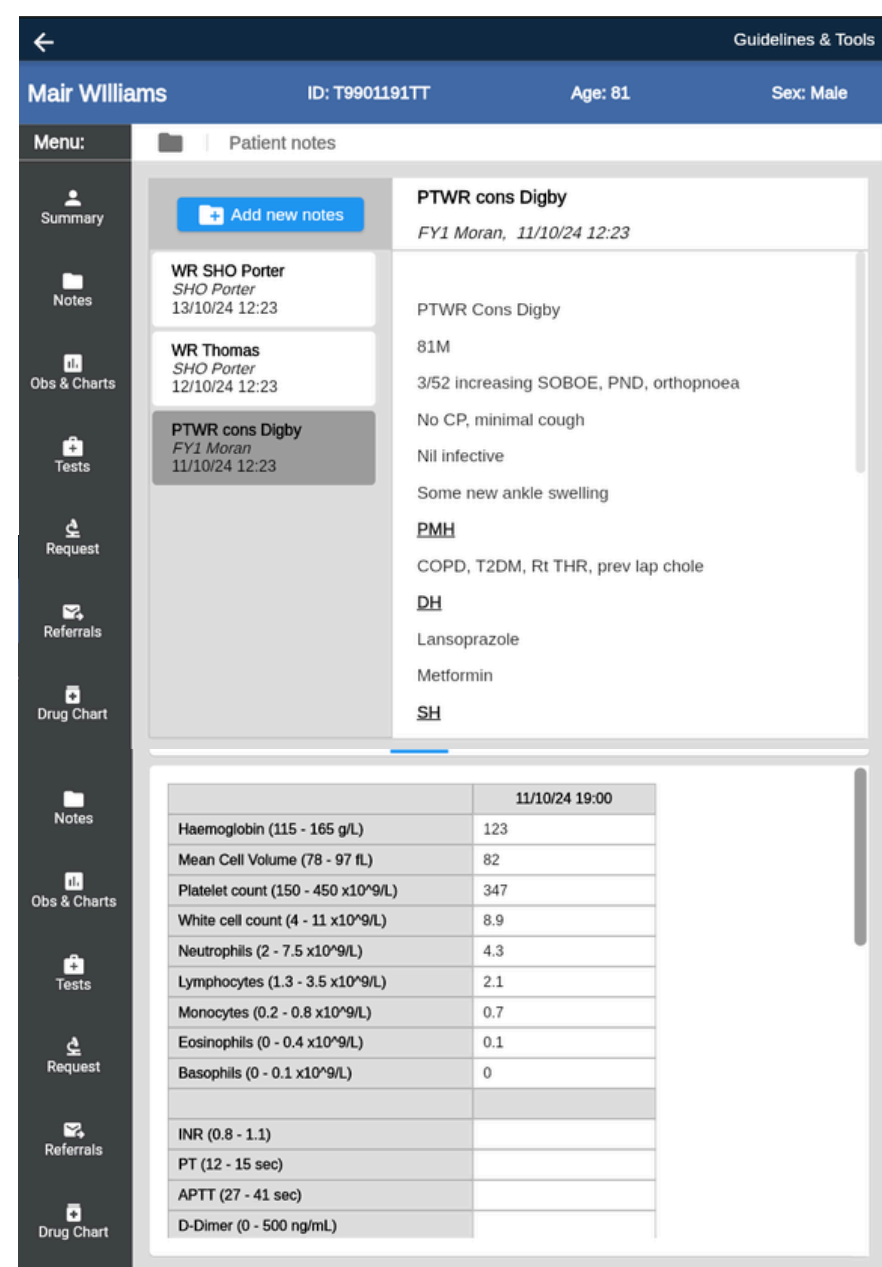
Background

Simulated electronic patient records appear to create a more realistic and potentially more useful learning experience [1] for students. Our simulation centre - DASH at Northumbria Healthcare - has gained significant experience with the SimEPR platform over the past two years.

SimEPR

One platform is SimEPR. SimEPR uses two computers - one for the instructor to send students results (e.g. x-rays, blood tests) in real-time to a student who is using the other computer to request and review results.

We have learned pearls and pitfalls over two years of use with medical students at a busy centre.



What works well... and what doesn't

Responsivity

Many scenarios have results which will not meaningfully change acutely depending on the learner actions. Some - such as ABGs in exacerbation of COPD - will change and lend themselves to real-time changes using SimEPR.

Timestamping

A unique opportunity is with time-stamped scenarios - e.g. a scenario which requires verifying NG tube position on an x-ray. Multiple x-rays with different timestamps can be used, to emphasise learning for safety.

e-Prescribing

SimEPR uses e-prescribing with pre-written doses for many drugs. This removes the opportunity to practice drug lookup skills.

AI

When generating notes for long admissions, AI (e.g. ChatGPT) can be used very effectively if supplied with examples of typical ward notes.

Information retrieval

As in 'real life', information retrieval and sorting is challenging when a patient has extensive notes. SimEPR can successfully train for this.

Paper notation

Our NHS trust uses electronic noting. We have noticed that students are becoming less familiar with paper notation - e.g. abdomen drawings. These must be taught in parallel where students don't have access to real paper notes.

Demo videos

All students should be sent brief (2-3 min) demo videos before the session. Students rated usability 4.4/5, and all students felt the video was useful.

Dual screen

Use a second screen so observers can see what the observer is seeing. This has led to interesting debrief discussions.

IT failures

While SimEPR itself is highly reliable, accessing it relies on less reliable internet access. Backup resources must be available.

1. BATTERY A, COURTNEY R, KIRBY A, REPTON B, ROBERTS C, THIND A. A102EMBEDDING electronic patient records into routine medical simulation training across the South East of England, a pioneering regional collaboration. International Journal of Healthcare Simulation. 2023 Oct 31;