Hello everyone and welcome to your monthly delivery of Medutech transatlantic musings. On Thursday 3rd September, the RSM Digital Health section will start a new series of webinars focusing on how digital health tools can release healthcare workers from low-level tasks, increasing time that would be far better spent caring for patients. For many of us, caring for patients was our motivation to pursue a career in healthcare, but lately it feels like we battle ever-shifting tick boxes and targets to show accountability. Demonstrating that we meet standards of excellence in our practice is clearly vital, but when this comes at the detriment of care our frustration can lead to clinic burnout, a topic that has received a lot of recent press on both sides of the Atlantic.

Electronic Health Records (EHRs) sounded like the perfect solution to our administrative burden. They were touted to improve safety, reduce documentation and errors, prompt higher quality care and even to save money. Medical records would be easily shareable between hospitals, releasing information previously only held in reams of paper locked away in dusty record departments, reducing unnecessary repetition of tests and preventing the life-threatening information gaps that lead to incorrect treatment and potentially huge patient harm.

To promote the “meaningful” adoption of EHRs in the US in 2009, President Obama signed the Health Information Technology for Economic and Clinical Health (HITECH) Act into US law. This legislation granted financial incentives for EHR adoption. Figures released at the time showed that only 9% of US hospitals had adopted a basic EHR and in 2020 that has now increased to a touted 96%. More recent research shows that, prior to 2009, 73% of hospitals had already started EHR implementation. Contrast this with UK figures from 2019, a full eleven years later, showing that a similar proportion, 77%, of NHS trusts had begun to adopt EHRs.

So what does the USA have to show for what amounts to a $36 billion investment over eleven years? A disconnected, proprietary, $13-billion-a-year industry that is mostly hated by its clinician users, so much so that the few remaining hospitals using paper-based records use this as a selling point to attract new staff. The satirical @EPICparodyEMR Twitter account demonstrates the collective frustrations of frontline healthcare professionals with its tongue-in-cheek mission to “create confusion for doctors. I will not rest until doctors do nothing but click buttons. Eye contact is evil”.

There are multiple reasons for the evolution of the EHR as a “tyrannical, time-consuming billing tool”. The software was developed from applications used to calculate charges for patients and insurance companies in the US healthcare system, rather than being designed intuitively for point-of-care access and documentation. One study using a standardized metric of technology usability graded current US EHR systems as an “F” on a scale that rates a Google search as grade “A”. The average physician spends around six hours a day using the EHR, 44% of which is consumed by clerical and administrative tasks like billing and coding. A new term “pajama time” was coined to describe the average 1.4 hours of their own, unpaid, time a clinician spends catching up on EHR chores.

When the HITECH act was introduced, an enormous raft -perhaps more of an aircraft carrier if we are to use nautical metaphors- of “meaningful use” EHR targets was attached to the financial support on offer to healthcare organisations. “Every single idea was well-meaning and potentially of societal benefit, but the combined burden of all of them hitting clinicians simultaneously made office practice basically impossible,” according to one CIO who served on EHR standards committees under both George W. Bush and Barack Obama. US doctors now frequently add what amounts to legal disclaimers to their EHR notes; that the entry hasn’t been proofread and for the reader to “disregard any errors,” because they just don’t have time for a second glance at a system that is currently costing US healthcare approximately $4.6 billion per year.
Clinical burnout amounts to a physical state akin to drained batteries, or of a healthcare worker feeling run down and out of energy. This leads to exhaustion, lack of efficiency and compassion fatigue. In the US it has been deemed a “public health crisis,” with one report finding that 78% of doctors suffered from at least some symptoms of burnout. Nurses suffer too, although appear to be more resilient- in a US study of almost 100,000 healthcare workers, 1% of nurses reported being burned out, versus 20% of doctors. Burnout is thought to contribute to high staff turnover, loss of productivity, increased rates of error and adverse health effects in staff. The healthcare worker’s personal life can also be affected, as emotional exhaustion spills over into the home environment.

Much of the blame for burnout in the US has been placed at the feet of poorly designed EHRs that consume excess physician time. They therefore either reduce the proportion of face-to-face time clinicians have with patients, or force them to spend that additional pajama time catching up off the clock. One study found that the greatest contributor to burnout amongst doctors was high EHR inbox volume - a buildup of tasks such as telephone enquiries, medication refills and disability forms- tasks that could potentially be delegated to other nonphysician staff.

Its not all terrible for EHRs in the US- 60% of physicians do think that EHRs have led to improved patient care, although almost as many said that the systems needed a “complete overhaul”, and that they detracted from both professional satisfaction and clinical effectiveness.

So what can we do in the UK to avoid the massive problems caused by the US adoption of electronic health records? Evidence suggests that doctors need to maintain autonomy, with flexibility to use the EHR in a way that suits their individual style of practice. In time, this might include voice-to-text speech recognition teamed with natural language processing that has been trained to document patient encounters in the individual clinician’s preferred style. Reducing the number of unnecessary alerts also seems to help to reduce burnout. A project called “Clickbusters” at Vanderbilt Medical Center aims to reduce low value alerts that can distract clinicians from focusing on important warnings and reminders related to patient care and safety. A final important factor seems to be the user-rated quality of EHR training, cited as the top predictor of user satisfaction and easy to get right, although this may come at a higher cost to healthcare organisations. UK Companies like HealthMe and Huma are working to deliver an enhanced experience to EHR users.

The COVID-19 pandemic has unearthed many failings in our current IT systems, but has also accelerated the adoption of new and beneficial technologies. As the dust begins to settle, at least on the first wave, we must take the time to regroup and to use data to evaluate what has worked and what is broken. The temptation for exhausted healthcare workers - burned out from months of caring for patients in full PPE - is to accept a lapse back to the status quo. However, in the longer term this would deal another disastrous blow to morale, to productivity and to care. We have the opportunity to fight for our future selves and patients, and to not repeat the EHR mistakes that have been so costly to the US healthcare system and its frontline workers. Tune into the RSM Digital Health webinar series to find out more ways that we can use digital health to release time to care.