Decision support technology

What is the best way to help GPs in today's highly challenging environment? Technology may provide an answer in the form of clinical decision support, says Peter AL Bonis

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GPs have been saying for some time that general practice is entering a perfect storm, facing problems with funding and workloads. In this context, it makes sense that they should be equipped with more resources. While a £2.5 billion funding boost designed to recruit more doctors and get GP practices back onto their feet will certainly help, a study by the Royal College of GPs (RCGP) in April 2016 showed that 89% of GPs said the resources to help them do their jobs are deteriorating, putting patients at risk.¹ ²

Clinical decision support

Clinical decision support (CDS) technology is workflow technology allowing clinicians to support their decisions with evidence-based information on diagnoses, treatment recommendations or drug prescriptions. It allows the clinician to access accurate and authoritative information exactly when they need it most – at the point of care – and in the most convenient way, such as via an app on a smartphone or tablet, or in the electronic patient record (EPR).

The key benefit of robust clinical decision support for the time-poor clinician is that it combines authority with speed. It can give the GP reassurance that they are making the right decision, whether it is a treatment recommendation or a drug prescription, in the limited time they have with patients.

CDS is a fast-growing global market. An estimate by the UK-based research company Outsell values it at $634 million, and predicts it will grow to nearly $900 million by 2019.³ A shared goal to improve quality and effectiveness at the point of care, while also helping clinicians to do their jobs faster and more safely, is driving this growth.

Change in mindset

Some clinicians believe that decision aids undermine their knowledge, and that they can keep abreast with the latest recommendations, new research and evidence. Unfortunately, that has become an unsustainable position. The evidence base in medicine is growing exponentially, making it impossible for today’s time-pressed GP to keep up.

This also means there is a lag between the release of latest evidence and the point where it is adopted in practice. CDS technology is a way out of this maze. Crucially, it does not replace the doctor’s intellect; rather, it supports the process and helps the clinician make the right decisions at the right time, giving them the evidence and the expert reassurance that a certain course of action is the right thing to do.

Reassurance for clinicians

A General Medical Council (GMC) survey showed many newly qualified junior doctors struggle with complex clinical decision-making and can make prescribing errors at up to twice the rate of other health professionals.⁴ A 2012 study among UK GPs found errors were made in one in 20 prescriptions. A study of junior doctors in Leicester evaluated the impact of e-learning and access to CDS on mobile devices.⁵ By the end of the study, medication errors were reduced by 50%.⁶ Using CDS often results in the clinician changing his or her decision, suggesting that it is correcting, or adjusting, their course of action.

Studies examining the clinical questions that arise in daily practice have found that
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about two out of three clinical encounters generate a question. However, only 40% of questions get answered. Answering all the questions would change five to eight management decisions each day for a typical GP. When GPs change their decisions, having received pertinent information, it may substantively alter patient care.8

Thus, decision support that helps answer these questions with state-of-the art, evidence-based knowledge, has the potential to have a substantial impact on care. This is all the more important when we consider how many GPs say work and time pressure directly affects their decision-making. The 2016 RCGP survey highlighted this, with 77% of GPs in Scotland saying they worry about missing something serious with a patient due to the intensity of their workload.2

Cutting variability in care

Apart from cutting the cost of errors, the use of CDS technologies has also been found to counter that other major cost drain for the NHS: variability in care. There is no reason why patients should play the so-called postcode lottery. Yet, we know that such variability continues to be common throughout the UK, with studies showing huge regional variations in key areas such as dementia care and early cancer diagnosis.9,10 The NHS is highlighting the problem with its Atlas of Variation in Healthcare report, which highlights disparities across a wide range of areas, including the willingness of GPs to prescribe antibiotics.11 Some of this variability is justified, based on differences in patient characteristics and availability of expertise; but, in other cases, there is no justification for it. It is wasteful, costs money and affects outcomes for patients.

A common cause of variable care is uneven access to the latest scientific evidence and the challenge of turning that evidence into practice. Fortunately, CDS helps to bridge this gap.

Technology is a great leveller for knowledge, putting the same information into the hands of a GP with a smartphone and an app wherever they are – in central London or a rural village surgery. It also keeps knowledge alive. When people do not have the time to catch up, vital lessons can be lost.

The digital doctor

For the new generation of GPs, the use of digital decision support tools will become far more intuitive. The ‘digital doctor’ is already here, and apps and other technology that can support them in their work are in demand. In the past, a GP in need of a second opinion may have consulted textbooks – today, they are more likely to check an app. The key to the success of CDS is that it needs to be ‘smart’, delivering information in a way that is seamlessly embedded into the physician’s work flow, and moving from being a passive information resource to a personalised and dynamic tool. Crucially, it recognises that today’s clinicians cannot be expected to know everything, and meets the urgent need to help them do their jobs better, faster and with better outcomes for the patient. PM

References
2. Royal College of GPs. 89% of GPs say they worry that lack of resources is putting patient care at risk and 56% plan to leave or reduce their hours within five years [Internet]. 2016. Available from http://www.rcgp.org.uk/news/2016/april/89-of-gps-say-they-worry-that-lack-of-resources-is-putting-patient-care-at-risk.aspx
6. Wolters Kluwer Health. UpToDate. UpToDate helps reduce prescribing errors among junior doctors in the UK. Available from https://www.upToDate.com/contents/watch?v=jTvSgP2omU