The adoption of new technologies can have unexpected consequences. The advent of the printing press helped spread the ideas of the Reformation. The creation of searchable electronic research databases led to the explosion in systematic reviews and meta-analysis that fuelled the growth of evidence-based medicine. The widespread use of electronic patient records in health care may have previously unforeseen consequences for medical litigation.

MEDICAL NEGLIGENCE AND GUIDELINES
To demonstrate medical negligence a claimant must show that the doctor failed to meet the required standard of care. For many decades the Bolam test — whether the doctor acted in accordance with a body of medical opinion — defined the required standard of care. But the 1997 Bolitho case modified the Bolam defence to allow that in some circumstances the body of medical opinion might be challenged as irrational. More recently, many lawyers have made use of evidence-based guidelines to inform the required standard of care in medicolegal cases. Failure to follow mumps, measles, and rubella immunisation guidelines and failure to follow National Institute for Health and Care Excellence guidelines in relation to anaesthetic practice have both been the basis of medical negligence claims. Medical indemnity organisations recognise the medicolegal status of guidelines and advise doctors to be prepared to justify decisions and actions departing from nationally recognised guidelines. Alongside this, the General Medical Council regard it as the professional responsibility of doctors to be familiar with guidelines. To put it bluntly, if a doctor departs from clinical guidelines, fails to record a rationale for doing so, and their patient suffers a foreseeable adverse outcome as a result of this departure, this could be the basis for a medical negligence claim.

ELECTRONIC MEDICAL RECORDS AND GUIDELINES
Do electronic patient records have implications for this? Quite possibly. Electronic records must be disclosed to claimants on request and it has been suggested that extensive electronic documentation is likely to affect the conduct of litigation. I would argue that it is also likely to affect the likelihood that litigation is initiated in the first place.

In the UK every patient registered with a GP has comprehensive electronic medical records. There is often sufficient information in these records to determine whether patients would be recommended to have had particular investigations or treatment according to clinical guidelines. This means that by retrieving the historical records of a patient who experienced an adverse event it is relatively easy to identify whether they had previously been treated in accordance with clinical guidelines. There is nothing new about patients or their lawyers requesting electronic patient records, but this reverses the normal sequence of events. Previously a patient who has experienced an adverse event first decided to take legal action and then, having initiated legal action, might request their medical records. Now, because it is much easier to search electronic than paper records, a patient who has experienced an adverse event could first request their medical records and then initiate legal action. Or more accurately, lawyers could actively seek permission from everyone who experienced an adverse event to search their records in the hope of identifying an opportunity for medicolegal action. We could think of this as a kind of electronic ambulance chasing. Would this be likely to be worthwhile? A look at some numbers may be instructive.

MISSED OPPORTUNITIES
There were 68,536 hospital admissions for stroke in England during 2011–2012. Of these, 28.8% had a secondary diagnosis of atrial fibrillation (AF). UK guidelines recommend that patients with AF at high risk of stroke are prescribed anticoagulants, which halves their risk of stroke. Analysis of electronic patient records indicates that, using the CHA2DS2-VASc score, 84.5% of patients with AF meet these criteria but only 50.7% are on treatment. This means that about 12.3% (84.5% × 50.7% × 28.8% = 12.3%) of first strokes occur in patients with AF whose electronic patient records show that they are eligible for anticoagulants but not receiving them. To put it another way, from the perspective of a medical negligence lawyer this means that the records of only eight stroke cases need to be screened to find one possible negligence claim. Across the UK this amounts to about 8,630 cases per year (12.3% × 68,536): about one per general practice per year.

Similar observations can be made about the use of statins. For some years national guidelines recommended statins for primary prevention in patients at ≥20% 10-year cardiovascular risk. Analysis of electronic patient records showed that under one-third of high-risk patients were prescribed statins over a 2-year period. During a period of 2 years most patients have many contacts with their GP, providing multiple opportunities to offer treatment. By definition, at least 2% of high-risk patients (≥20% 10-year CVD risk) will suffer from cardiovascular events each year. It is not difficult for a lawyer to request

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... from the perspective of a medical negligence lawyer this means that the records of only eight stroke cases need to be screened to find one possible negligence claim.
There is an old adage that if it is not in the appropriate treatment or investigation of guidelines or simply did not consider a claim is possible if the GP is unaware there is no problem. But a negligence claim is possible if the GP documented a rationale for not offering treatment, did not mention it to the patient, or did not document a rationale for not treating, then a negligence claim is possible.

UK guidelines recommend urgent investigation of iron-deficiency anaemia for suspected bowel cancer.14 Fewer than half of patients with iron-deficiency anaemia are referred for further investigation and only about one-third are referred to the right specialty.15 As laboratory tests and reported symptoms such as rectal bleeding are available in electronic patient records, previous evidence of eligibility for referral is easily identified in patients diagnosed with cancer. If a patient suffers harm through late diagnosis or emergency presentation and there is evidence of significant delay between a patient meeting referral criteria and referral, a negligence claim is possible. A doctor who fails to document reasons for not investigating previous iron-deficiency anaemia or other symptoms in a patient with cancer may find it hard to offer a defence.

### SEARCHING RECORDS FOR LITIGANTS

The archive of data in electronic medical records is an uncompromising documentation of events. It is easy for a lawyer to request a patient’s electronic patient records. Daytime television already advertises for potential litigants among those who experienced accidents or injuries at work. It may not be long before we see similar advertisements aimed at patients recovering from strokes, cardiovascular disease, or cancers.

If the GP has offered treatment or investigation but it is documented that the offer was declined this is a robust defence. If there is documented a rationale for not offering treatment or investigation then there is no problem. But a negligence claim is possible if the GP is unaware of guidelines or simply did not consider the appropriate treatment or investigation. There is an old adage that if it is not in the records then it did not happen. If there is an absence of justification for inaction in the records then this absence is itself sufficient evidence. The thing speaks for itself: res ipsa loquitur, as lawyers like to say.

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