

Because of the amount of time required to make “from scratch” evidence based decisions, evidence based practitioners will often not succeed in reviewing the original literature that bears on a clinical dilemma they face. Thus, two reasons exist why training evidence based practitioners will not, alone, achieve evidence based practice. Firstly, many clinicians will not be interested in gaining a high level of sophistication in using the original literature, and, secondly, those who do will often be short of time in applying these skills.

In our residency programme we have observed that even trainees who are less interested in evidence based methods develop a respect for, and ability to track down and use, secondary sources of preappraised evidence (evidence based resources) that provide immediately applicable conclusions. Having mastered this restricted set of skills, these trainees (whom we call evidence users) can become highly competent, up to date practitioners who deliver evidence based care. Time limitations dictate that evidence based practitioners also rely heavily on conclusions from preappraised resources. Such resources, which apply a methodological filter to original investigations and therefore ensure a minimal standard of validity, include the *Cochrane Library*, *ACP Journal Club*, *Evidence-based Medicine*, and *Best Evidence* and an increasing number of computer decision support systems. Thus, producing more comprehensive and more easily accessible preappraised resources is a second strategy for ensuring evidence based care.

The availability of evidence based resources and recommendations will still be insufficient to produce consistent evidence based care. Habit, local practice patterns, and product marketing may often be stronger determinants of practice. Controlled trials have shown that traditional continuing education has little effect on combating these forces and changing doctors’ behaviour.⁴ On the other hand, approaches that do change targeted clinical behaviours include one to one conversations with an expert, computerised alerts and reminders, preceptorships, advice from opinion leaders, and targeted audit and feedback.⁵⁻⁷ Other effective strategies include restricted drug formularies, financial incentives, and institutional guidelines. Application of these strategies, which do not demand even a rudimentary ability to use the original medical literature and instead focus on behaviour change, thus constitute a third strategy for achieving evidence based care.

Nevertheless, there remain reasons for ensuring that medical trainees achieve the highest possible skill level in evidence based practice. Firstly, attempts to change doctors’ practice will sometimes be directed to ends other than evidence based care, such as increasing specific drug use or reducing healthcare costs. Clinicians with advanced skills in interpreting the medical literature will be able to determine the extent to which these attempts are consistent with the best evidence. Secondly, they will be able to use the original literature when preappraised synopses and evidence based recommendations are unavailable. At the same time, educators, managers, and policymakers should be aware that the widespread availability of comprehensive preappraised evidence based summaries and the implementation of strategies known to change clinicians’ behaviour will both be necessary to ensure high levels of evidence based health care.

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We thank the following for their input: Eric Bass, Pat Brill-Edwards, Antonio Dans, Paul Glasziou, Lee Green, Anne Holbrook, Hui Lee, Tom Newman, Andrew Oxman, and Jack Sinclair

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Systems for emergency care

Integrating the components is the challenge

The British government’s announcement of the first 36 new NHS “walk in centres” is the latest in a series of important changes in the provision of immediate access services over the past 20 years.¹ A study of first contact out of hours care in England 16 years ago recorded only attendances at accident and emergency departments, general practitioners’ home visits and telephone advice, and visits by deputising services.² Contacts with regional trauma centres, minor injury units, general practitioners’ out of hours cooperative treatment centres, community phar-

macies, and community mental health teams, for example, were either negligible or non-existent.

The recent development of triage and advice telephone services, such as NHS Direct,³ has further complicated the picture, and now the government proposes 36 walk in centres (with more under consideration) to “offer a service to the public, when the public need it and where the public need it.”¹ These services, based in shops, health centres, and hospitals will be nurse led, with access to general practitioners in some cases, and will offer extended opening hours, including

evenings and weekends—but how do they fit into the changing emergency care environment?

Although seemingly chaotic, the profusion of services for emergency and unplanned health care can be seen as developing at three distinct levels. Firstly, there are regional systems based on populations of 2-3 million and reflecting the widespread belief that centralised, specialist services provide more expert and therefore better care, demonstrated by the British Orthopaedic Association's call for regional trauma⁴ and orthopaedic⁵ networks and the national service framework for paediatric intensive care.⁶ There is a movement to organise NHS Direct call centres and ambulance services around populations of this size, which is also the appropriate scale for helicopter ambulances in the United Kingdom.⁷

The second tier remains built around accident and emergency departments serving populations of about half a million and providing care for serious emergencies such as stroke, myocardial infarction, hip fracture and other single system trauma.

A third tier of first contact care services is now developing for less serious problems, based around primary care. This tier includes general practitioner out of hours cooperatives and their treatment centres, minor injury units, and now walk in centres. The last are local ambulatory access centres and, like cooperatives, can serve only small populations of 50 000-200 000 if they are to be locally accessible. Since this is a similar size to that served by primary care groups, it is reasonable to suggest that this third tier might naturally be organised around them or their future primary care trusts.

But recognising the potential for such an emergency medical system does not mean that an integrated coordinated system yet exists. Indeed, given the diversity of services, the old emergency care problem of getting the right patient to the right service at the right time—in order to obtain the best outcome at the least cost—becomes ever harder to achieve. Two immediate issues arise. Firstly, how can this diversity be coordinated into an emergency medical service? The chief medical officer's out of hours review team considered a similar problem.⁸ Its conclusion—that a telephone immediate care advice line might provide the necessary coordination—was the precursor to NHS Direct. However, a telephone helpline separate from both the 999 emergency service and general practitioners' out of hours helplines cannot alone ensure that hospital services for major and serious emergencies, as well as minor first contact care services, are coordinated.

Secondly, as services multiply, triage grows in importance. An emergency medical service can be organised either around indirect or direct triage. With indirect triage first contact is by telephone (via 999, cooperatives, NHS Direct, accident and emergency department) and callers are then advised where to seek help on the basis of the symptoms they report. With direct triage patients are encouraged to enter the emergency medical service at any convenient point of access (walk in centre, minor injuries unit, primary care centre, accident and emergency service) and are assessed in person before being transferred if necessary to a more appropriate service. The (theoretical) advantages and disadvantages of these alternatives are clear. An indirect telephone triage system leads to shorter times to definitive care (on average) but will occasionally produce

inappropriate or even life threatening decisions.⁹ Direct access bypasses a triage step, so speed to first contact is improved but appropriateness is reduced.

At least three outstanding questions therefore need to be resolved before we can begin to guess at the optimal configuration for an emergency medical service. Firstly, can telephone triage be safe and reliable enough to underpin the system? While the emphasis here is usually on safety, unless the system is also specific enough, overtriage can lead to delays for the most serious cases.¹⁰

Secondly, if first contact care is being provided by minor injuries units, walk in centres, and NHS Direct, as well as by general practitioners or their deputies, what will happen to continuity of care? Some general practitioners have already dismissed walk in centres as the end of both general practice and continuity of care.¹¹ Yet despite many similar complaints, commercial deputising services achieve similar levels of patient satisfaction as out of hours cooperatives and similar outcomes to patients' own GPs.^{12 13}

Thirdly, what will be the effect of increasing the accessibility of emergency services on the total demand for health care? By lowering access barriers NHS Direct, walk in centres, and minor injuries units could stimulate, as well as redirect, existing demand to such an extent that the knock on effects on secondary care become unsustainable. We will soon know, from experience, the answers to some of these questions.

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Notice of duplicate publication

Pituitary surgery for acromegaly

This editorial by RN Clayton and others (4 September, p 588) was substantially the same as a commentary by RN Clayton that had appeared earlier in *Clinical Endocrinology* (1999;50:557-9). The editors of both journals did know that this was so, but the authors and the *BMJ* failed to make clear that the *BMJ* article was based on the one that had appeared in *Clinical Endocrinology* and also failed to seek copyright permission. The *BMJ* and the authors apologise.

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