support and clinical information systems. These changes are consistent with the chronic care model, a synthesis of system components and strategies associated with effective care across conditions.[w5] Three managed care organisations explicitly use the chronic care model as the guide to changing systems.

In their paper on page 223, Lewis and Dixon relate policy developments in the NHS to the elements of the chronic care model and conclude that recent NHS policy and planning initiatives are addressing many of the essential elements of high quality chronic illness care.[2] But these efforts would benefit from a "clear generic model of disease management." To be more relevant to the British context, the chronic care model or any other model must link the macro policy environment to frontline care and the needs of patients.

These two papers, on balance, show that the recently launched NHS push to improve care of chronic diseases is on the right track and is likely to have much to teach the United States and other countries. The growing epidemic of chronic diseases in developing countries will be one of the topics covered in the *BMJ*'s fourth theme issue on chronic disease care in January 2005.

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Competing interests: EW is the leader of the team that developed the chronic care model funded by the Robert Wood Johnson Foundation.

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Reconfiguration of surgical, emergency, and trauma services in the United Kingdom

Centralisation of services is politically impossible

To find the royal colleges proposing that acute inpatient care in the United Kingdom should be provided in fewer, larger, better equipped, and better staffed hospitals is not unusual. What would be unusual would be to find a government two years out from a general election rushing to implement such advice. The Senate of Surgery of Great Britain (comprising the four surgical royal colleges, the dental faculties, and 10 surgical specialty associations) has published a policy paper that seeks to speak with a single voice for the surgical community (www.rcpsg.ac.uk/recreport.htm).[1] This policy paper signals a wish for a debate on this controversial topic and a wish to participate.

These surgeons want a lot—and not for the first time, and not just the surgeons. The senate suggested something similar in 1997, but it did not happen.[2] The Royal College of Physicians wants to phase out acute emergency admissions from isolated smaller units and transfer the work to properly equipped and staffed larger units.[3] The arguments are cogent and extensively made—in surgery, medicine, paediatrics, and maternity care. The impending need to comply with the European Working Time Directive—a regulation of the European Union limiting a doctor's working week to an average of 56 hours, which comes into force in August 2004—is adding velocity to a general demand among professional advisory bodies to concentrate the medical workforce in fewer, larger, acute centres.

At this stage in the United Kingdom electoral cycle (with an upcoming election in which the NHS is guaranteed a central place among the issues), does anyone expect to see the rapid implementation of policies that will be perceived to "downgrade" the importance of perhaps 50 or more acute hospitals? When asked to take a tough decision, Richard Nixon was alleged to ask, "Does it play in Peoria, Illinois?" Badly.

Conditions for the new pattern set by the senate

- Must be acceptable to the public
- Make coordinated care from first presentation to rehabilitation and return to home possible
- All surgeons are to have adequate clinical experience and training opportunities
- Services are to be cost effective; the importance of outcome data is to be recognised
- Internationally accepted standards of surgery are to determine the reception of all surgical patients in all centres irrespective of size
- Complex surgical inpatients are to be treated in larger hospitals

Perhaps the senate's members will be in a difficult position for some time to come until one of two ways forward is cleared. Firstly, they could connect their ambition for greater centralisation of complex acute cases to the realpolitik of constituency affairs and provide the politicians with a means of winning votes by implementing them. The Kidderminster debacle will be fresh in all politicians' minds. (Kidderminster is a town in England that voted out both the local council and member of parliament and replaced them with single issue candidates dedicated to saving the local hospital.) Any local proposals for reconfiguration of hospital services will have to negotiate a substantial nexus of legal and political processes. The history of these consultations

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teaches us that public anxieties about losing local access to emergency services carries more political clout than professional logic. Maybe it is time for the colleges to explore this public psychology and find a way of connecting with it. Secondly, they could give deeper and wider thought as to how "managed clinical networks" could be introduced so that local emergency units can flourish while complex emergency cases can be swiftly funnelled towards appropriate specialist centres.[4] According to evidence presented by the London Ambulance Service to the Turnberg review of London in 1998, perhaps only 35% of patients arriving via 999 calls are admitted to hospital. The document acknowledges the need to encourage "a flexible approach to working by consultant colleagues in different hospitals forming a managed clinical network." This encouragement now needs to find its response at grass roots level in imaginative and practical proposals supported by these colleagues.

I have argued elsewhere that more work is to be done to evaluate how smaller local emergency units can work in tandem with more major centres of specialist care in a way that exploits the rapidity of access that a local unit brings while gaining the diagnostic leverage of specialist colleagues.[5] If the price of moving the complex emergency to an appropriate centre of expertise is that this patient is accompanied by another nine or 10 patients who are not complex acute cases then another set of problems is launched.

This call by the senate for reconfiguration gives some valuable pointers as to where further policy work might be fruitful—the development of non-medical cadres, greater integration of the ambulance service, the development of information technology, and the involvement of the public. To these could be added the exploration of virtual diagnosis, the amalgamation of primary and secondary care in smaller communities, and the rotation of staff within clinical networks and between smaller and larger units.

Of one thing we may be certain. Any proposals to reconfigure acute emergency hospital services in the United Kingdom are going to be politically controversial and hotly contested.

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Competing interests: AB, as a management consultant, may in future receive fees for work involving concepts and ideas mentioned in this editorial.

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Treatment of acute pyelonephritis in children

Evidence favours the oral route and a short course of appropriate antibiotics

A 9 month old girl presents with high fever, vomiting, lethargy, and bacteriologically confirmed urinary tract infection. The diagnosis is clear—acute pyelonephritis. This is a common problem and the cause of about 5% of febrile episodes in children.[1] But how should she be treated? Which antibiotics should be given and by which route? For how long should antibiotics be given? This article summarises what we know about treatment of acute pyelonephritis from randomised trials and what we think we know about treatment, based on clinical experience.

Acute pyelonephritis comprises urinary tract infection with systemic features including fever, vomiting, abdominal or loin pain, and lethargy. Fever is the most useful symptom clinically. Compared with the reference standard for pyelonephritis—technetium-99m dimercaptosuccinic acid scanning—fever is very sensitive but has only moderate specificity. In few afebrile children—except very young infants—the renal parenchyma is affected. Conversely in about 50% of children with clinical pyelonephritis the renal parenchymal is affected.

The major decisions about treatment that are to be made concern the use of antibiotics. Infants aged 1 month or less with urinary tract infection require intravenous antibiotics because of the high prevalence of concomitant bacteraemia (about 10%) and of uropathology, including posterior urethral valves, obstructed duplex systems and high grade vesicoureteric reflux with serious metabolic disturbance such as hyperkalaemia and hyponatraemia. Also young infants have been systematically excluded from randomised controlled trials, which makes the evidence for treatment very weak. Since *Escherichia coli* and *Enterococcus faecalis* are the most common pathogens in this age group, empiric treatment with a β lactam antibiotic and an aminoglycoside is indicated. The choice of specific antibiotics should be based on data about local uropathogens. Clinical experience indicates that intravenous treatment should be continued until systemic signs resolve and then oral antibiotics, chosen to match the in vitro sensitivities of the isolated uropathogen, should be given for seven to 10 days.

What about children aged over 1 month with acute pyelonephritis? Here the evidence available to guide decision making is based on 18 randomised controlled trials, of which 16 are summarised in a recent Cochrane review.[2]

Should antibiotics be given intravenously or orally? Two trials including 306 and 387 children compared oral (cefixime,[3] amoxicillin-clavulinic acid[4]) with intravenous (ceftriaxone) treatment for three days or defervescence followed by cefixime or amoxicillin-clavulinic acid. Total duration was 10 or 14 days. No differences in the time to defervescence, recurrence of urinary tract infection, or frequency of renal parenchymal abnormality at 6-12 months were evident between the two groups. Failure of treatment was very low in the orally treated group, and treatment costs were about

BMJ 2004;328:179–80