

Can we safely ditch the District General Hospital?

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Those campaigning around the health service have been aware for some time that the nature of political battles has taken a decidedly technical turn. This is clearly evident in the case of the private finance initiative (PFI) from the mid 1990s onwards where the work of academics such as Allyson Pollock and her colleagues (e.g. Gaffney et al, 1999) has provided an important bulwark of evidence challenging the fanciful claims (especially the value for money one) made by the proponents of the policy. As time has passed, the truth of the financial – and therefore service - implications of PFI has become ever clearer. The decision by the then Health Select Committee to single out Prof Pollock for criticism in their report (2002:para 66) struck many observers as not merely politically motivated but also a sign of the danger she represented; in other words, Prof Pollock had hit the spot.

Now we see the same centrality of technical battles in the case of hospital reconfiguration. Health care delivery is shaped to some extent by government policy dogma. Until recently, the principal threats to the NHS were arguably funding levels which did not keep pace with increased need (especially Thatcher), the creation of an internal market (Major) and then an open competitive market (Blair) and the growing encroachment of the private commercial sector (slightly Thatcher but mainly Blair and Brown). Now, a new threat to accompany these has emerged. This is the government's plan to reduce dramatically the number of maternity, inpatient paediatric and emergency and accident departments across England. (I'm really speaking of England here as health is a devolved responsibility.) Alongside this is a more general proposed shift towards the concentration of a swathe of hospital services (especially surgical) into fewer units with a decanting of other services (for instance, diagnostics, management of long term conditions) into the 'community'. The latter may be located in LIFT-funded (a variant of PFI) community health centres as proposed for Greater Manchester or in 'polyclinics' as proposed for London, where the mode of capital funding has not yet been specified.

For some, this centralisation of some services and relocation to the community of others is an important step in the modernisation of the health service. For others, it represents a withdrawal of locally available services and the loss of a fully-functioning District General Hospital. Whilst benefiting from, at least initially, the loyalty of the local population to their hospital, those campaigning to save their services face a barrage of justifications for reconfiguration from health service managers and increasingly clinicians, one of the strongest of which perhaps is that services will be much safer and of a higher quality post-reconfiguration. How are campaigners to assess such claims? When respected professionals tell us that services will be better, it is tempting to accept that they must be right. But in fact this is not always the case.

One of the big debates to have broken out over hospital reconfiguration concerns the strength of the evidence base for claims that concentrated services produce better outcomes for patients. This is a major plank of what is known as the 'clinical case' for change: namely, that the more cases a particular unit or a particular physician or surgeon see, the higher quality care they can give and the better the clinical outcome for the patient. This sounds intuitively right: if a doctor sees more of a particular type of problem or condition, then his or her experience and skill in responding will be greater. And this is the logic we are being asked to believe by a number of proponents of reconfiguration.

However, the evidence for any generalised claim to this effect is weak. Yes, there are some complex procedures which attain better outcomes when dealt with in larger units. One systematic review of the evidence found the most consistent and striking absolute difference in mortality rates between high and low volume hospitals was for pancreatic cancer surgery, oesophageal cancer surgery, paediatric cardiac surgery, treatment of AIDS and surgery for unruptured abdominal aortic aneurysm. For many other common surgical procedures and conditions, the evidence was much more limited and inconsistent (Halm et al, 2002).

There are very few studies which examine the relationship between volumes of cases by physician or surgeon rather than unit; again, Halm et al found the most striking differences in mortality rates

between high and low volume surgeons were seen for pancreatic cancer, ruptured abdominal aortic aneurysm and paediatric cardiac surgery. Surgeon volume seemed to be a more important determinant of outcomes than hospital volumes in the case of coronary artery bypass grafting, carotid endarterectomy, surgery for ruptured abdominal aortic aneurysm and for colorectal cancer.

The policy implications of this limited and mixed picture are further confused by other features of the research we have. Where a volumes/outcomes relationship is demonstrated to exist, this tends to be true only on the average: that is, some larger units may perform less well than average while some smaller units may produce average or better outcomes and it is not possible to predict precisely which units will produce better outcomes. In addition, most research is conducted in relation to surgical procedures rather than medical conditions. Perhaps most worrying of all, the authors of two systematic reviews (Fergusson et al, 1997; Halm et al, 2002) have emphasised the methodologically poor quality of much research in the area. This is partly because the limited way it operationalises or defines adverse outcomes (often only as inpatient mortality); and partly because – and this is more serious – much of it fails to make adequate adjustment for differences in patient case-mix. In fact, Halm et al (2002) found that the higher the methodological sophistication of a study, the *less* likely it was to report a positive effect of hospital volume on outcome.

Since these reviews were conducted, much further research of this kind has been produced but there has been no systematic analysis of it, significant methodological flaws persist and the question of causation remains inadequately addressed.

Despite these awesome limitations, some clinicians have in some areas – for instance in Greater Manchester, where inpatient maternity and paediatric services are to be dramatically centralised and where Rochdale's A&E is also to close and its DGH reduced to a 'locality hospital' – made claims for service concentration which simply cannot be supported by the evidence base (see Ruane, 2007). And although the Independent Reconfiguration Panel in its recent endorsement of the proposals to reduce the number of maternity units in Greater Manchester from 12 to 8 found 'units require a sufficient throughput and case mix to enable staff to develop and maintain skills' (2007:32), I have been unable to find a

clear body of empirical evidence relating to patient outcomes which demonstrates an optimal unit size. However, the closing down of some consultant-led maternity units in favour of fewer, larger ones continues.

The matter is an important one since documents produced by local health organisations for the purpose of consulting the public formally may contain inaccurate and potentially misleading assertions. And even prior to any formal process of consulting the public, clinicians and others in a position to influence decisively the unfolding process of planning changes to local services (for example by shaping the options to be consulted upon), may unwittingly misrepresent the evidence. Intriguingly, the opposition spokesman for health, Andrew Lansley, has cottoned on to this and has challenged clinicians and politicians alike on the matter.

The volumes/outcomes argument is not to be confused with another which often accompanies it: namely, that robust and sustainable levels of staffing to guarantee safe services require service concentration. This is essentially a workforce planning issue and the principle should be, surely, that whatever the impact of the European Working Time Directive and Modernising Medical Careers, the service requirements of the people shape and direct the character of clinical training and scale of employment, and not the other way round.

Post Script

It appears that this gap in the evidence base has come to the attention of Sir Derek Wanless who notes in his recent review of NHS funding and performance:

“In many parts of the country, a drive for better quality and lower costs, combined with other factors, such as EWTD, is leading to plans for substantial reconfiguration of services. During the 1990s, reconfiguration had focused on the need for fewer hospital sites, presumed to enjoy lower costs and produce better quality care. But the evidence base for justifying change in terms of cost, quality and access was, and remains, weak. The series of papers issued on the clinical case for change (Department of Health

2007f,l,m,n,w) contained very little evidence to justify their proposed change of direction in terms of potential benefits. The one piece of statistical evidence cited in these papers – relating to improved care for heart patients – was based on clinical judgement rather than research (Hansard 2007a)..... A critical evidence gap therefore remains.” (Wanless et al, 2007:55)

Sir Derek Wanless and his colleagues recommend that, given the potentially high costs of local service reconfiguration, detailed research should be carried out into new models of delivery *prior* to their implementation.

References

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