

changed. The principle objective now is to support and encourage the 31 primary care trusts (PCTs) in London to commission high-quality services – services which the population of London deserve and expect.

Since it is London's 31 PCTs that have the legal duty to consult on any proposals for significant change in services, they are now engaged in that process. It is those PCTs which will reflect upon the outcomes of the consultation and according to what they hear will then plan the next steps. Those next steps will require further consultation.

The PCTs have the duty to improve the health and healthcare of their population and they have the power of commissioning to carry out that duty. It is the utilisation of this authority that will have the most influence upon change and improvement in NHS services in the future.

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#### Spheres of medical influence: Academic Vice President, Royal College of Physicians

Editor – I greatly enjoyed Jane Dacre's thoughtful and thought-provoking piece (*Clin Med* February 2008 pp 13–5). There were two main themes. Firstly, that medical voices were not always effective in influencing policy even when bodies such as the British Medical Association, specialty societies and royal colleges had been consulted (a theme loudly echoed in the Tooke Report<sup>1</sup>). Secondly, that the demography of medical 'leadership' positions does not truly reflect the range or gender of practising doctors. I would like to add the following observations.

I have seen at first hand the extent and usefulness of often unpaid and unrecognised but vital work put in by clinicians who go the extra mile to contribute to local service leadership, postgraduate education, health policy and guidelines. However, I have also witnessed colleagues participating in external activities largely motivated by the

desire for recognition, advancement, financial reward or the glamour of being close to the levers of power. Within trusts, medical managers often have little formal leadership training and are at best 'tolerated' by general managers so long as they are not too challenging of what should be their primary patient advocacy rather than 'corporate' role. Independence of thought and vision is not always rewarded; implementing government directives and targets is what counts. Likewise, in royal colleges or deaneries the way to advancement is to subscribe to the tribal norms and not be too troublesome. If we look at the behaviour which is rewarded/penalised, and the amateur 'Buggin's-turn' ethos, there is a clue to the leadership vacuum identified by Tooke and others.<sup>2</sup> In my experience, this is one of the reasons why so many able and committed female or overseas colleagues prefer to stick to local service leadership where they can see tangible gains for their effort and are put off many external roles. It's not all about work–life balance or discrimination.

Moving onto representativeness, an issue not really alluded to by Dacre is the inherent and overwhelming bias in the values of British medicine towards academia. Most physicians, for instance, work in busy district general hospitals dealing largely with patients who are ageing, or frail or with multiple long-term comorbidities. The service is largely about successfully managing common conditions with standard treatments. Not only is there a covert prestige hierarchy of diagnoses/specialties but there appears to be an assumption that the true leaders of the profession are academics based in tertiary referral centres and preferably those dealing with cutting-edge technologies.<sup>3</sup> A trawl through the names at the 'top' of most royal colleges and specialist societies will confirm this impression. This situation has been compounded by research performance frameworks which reify basic lab-based science and lucrative pharmaceutical research over research concerning service delivery, making academic clinicians even less representative. At its most extreme, this leads to chairs in disciplines appointed on the basis of their research expertise but with little training, competence or day-to-day activity in that craft. An academic contract signals a highly trained mind and

more readily lends itself to external activities, but is no guarantee of having the right expertise or leadership skills to influence front-end service delivery or health policy. Meanwhile 'coalface' clinicians who have developed or led busy local services are under represented. This is an imbalance that has to shift. At the moment, I believe that such doctors, along with many female or overseas colleagues, survey the landscape and vote with their feet.

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#### Never say die?

Editor – Alex Paton accuses those who oppose assisted dying of doing so on the basis of 'confusing definitions, inappropriate ethics and more than a whiff of hypocrisy', and yet his own article is suffused with examples of the same (*Clin Med* February 2008 pp 106–7). Paton implies that the only way to achieve a 'gentle and easy death' is through euthanasia, and that opposition to the latter includes an unwillingness to 'help at the end of life'. He dismisses worries about the 'slippery slope', yet at the same time espouses and hints, quite rightly, at the inevitability of such extensions of practice beyond that allowed in initially limited legislation. Sadly, he also reinforces some of the misunderstanding that may fuel public support for assisted dying<sup>1</sup>: he seeks to blur the distinction between withdrawing treatments that are becoming increasingly futile, and actively killing<sup>2</sup>; and the doctrine of double effect is increasingly being seen as a 'red herring' in end-of-life care, as opioids and sedatives need not hasten death when used appropriately.

Paton is right that there will always be some people who would like the option of assisted dying. Many of us would no doubt

aspire to an ideal of fully informed autonomy that is free from internal conflict and external pressure. Yet, in reality, most decisions at the end of life are messy and involve those who are physically and psychologically vulnerable. The option of assisted dying may in fact deny to some the gentle and easy death that would otherwise be theirs. What represents the greater injustice – not killing those who want it (and for whom alternatives are available), or killing those who do not really want it? Even in the Netherlands, which arguably has the most robust safeguards of any jurisdiction that allows assisted dying, the latest official survey concludes that the transparency envisaged by the Dutch law does not extend to all cases of euthanasia.<sup>3</sup> It is then down to the arithmetic of suffering. How many patients dying under similar legislation, before they would otherwise have wanted, would be acceptable in order to provide for one particular version of a gentle and easy death?

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#### In response

I enjoyed Dr Stephenson's account of my many misdemeanours, but attacks *ad hominem* are usually a sign that one's opponent has nothing to air but his own prejudices. Of course I do not believe that euthanasia is the only way to a comfortable death. Of course I do not 'espouse the slippery slope' when I imply that inoperable cancer and intolerable suffering will be seen to be too narrow an indication as euthanasia comes to be acceptable in the future (and I provide a list you can argue about). And to go on the offensive, Dr Stephenson says that 'most decisions at the end of life are messy',

and in one of my previous articles I quoted a hospital nurse who said, 'You can't provide [the dying] with what they really want'. Perhaps Dr Stephenson and his colleagues should be doing something to clear up the mess – with the help naturally of patients who have made their own preparations for death. A final point that needs emphasising is that we are getting hot under the collar about a tiny number of people: only 171 requests were received in Orlando between 1998 and 2003 following legalisation of euthanasia.

But why are we arguing like this? I have said repeatedly that the views of both sides in emotive issues like euthanasia should be respected and accepted. If we do not, it is possible to envisage a much more dangerous slippery slope, from angry confrontation to public outcry, riots and even war.

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#### Never say die?

Editor – I must take issue with Alex Paton in regard to his use of language (*Clin Med* February 2008 pp 106–7). Despite its linguistic origins, euthanasia and 'a gentle and easy death' are not synonymous terms. Surely even the most vociferous opponent of euthanasia would not wish Dr Paton anything other than a peaceful end when his time comes. However, they would certainly question the suggestion that they should take steps to end his life before that time. I am also concerned at the use of statistics; Paton suggests that, although the great majority of those responding to the survey conducted by the Royal College of Physicians in 2006 were opposed to assisted dying, this is not a representative number – surely this must work both ways and so he can not infer that the silent majority would agree with his position. In attempting to counter any suggestion of 'slippery-slope' arguments, Paton refers to the figures for euthanasia from Holland and Oregon, however the accuracy of reporting in both jurisdictions is far from clear.

There is much more at stake here than the mere wishes of individuals 'who find the idea of assisted dying morally repugnant'. The doctrine of sanctity of life 'has long been recognised in most, if not all, civilised societies throughout the modern

world, as evidenced by its recognition in international conventions on human rights'. The principle of sanctity of life protects the most vulnerable in society and weakening its power would have far-reaching consequences. Paton describes 'horror stories' about aggressive care at the end of life. Respect for sanctity of life is not the same as vitalism, that is, believing that all attempts must be made to preserve life regardless of the cost. There is a 'time to die', and we must improve our ability to recognise that time, to recognise the limitations of our abilities, and hold back from distressing and unhelpful interventions. We must not, however, confuse our failings here with a need to hasten the end.

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#### How does the brain process music?

Editor – I read with interest the article reviewing music processing and the brain with evidence from many clinical studies where brain lesions lead to specific auditory processing defects (*Clin Med* February 2008 pp 32–6). I would like to add that in order to help understand how the brain processes music, there is helpful evidence provided from studies in physics and mathematics. We have come a long way in waveform analysis since a series of elegant experiments by Faraday and Maxwell in the 19th century.<sup>1,2</sup> In sound analysis, there is one particular method of processing waves which is particularly important. This is the Fourier transform, which is now extensively applied in many practical situations involving sound processing, such as noise reduction in audio or electrocardiographic equipment.

Fourier, a 19th century mathematician, analysed the separation of waves into components of different frequencies. The ear and the brain formulate an analogy of the process demonstrated mathematically by a Fourier transform.<sup>3</sup> In this process, the ear converts sound waves which come in a large packet or combination of waves into smaller individual wave components, thus allowing further analysis by the brain. In addition, experiments in artificial neural networks and the concept of nerve signal reinforcement (Markov processes)<sup>4</sup> have shown that the network of nerves can select