guarding the confidentiality of patients." Most lay people see the profession's scepticism as an insult to their integrity.

The General Medical Services Committee's working party seems to have been unconcerned about how the public and politicians might view its proposals—otherwise it would not have proposed to increase professional control over a system already under challenge for partiality, lack of openness, and professional control. The public is unlikely to find its ideas acceptable. To suggest that most complaints are problems of communication, amenable to resolution by doctors themselves, will not be seen as an improvement. The extension of the informal conciliatory system will not satisfy the demand for an investigative system. It is in nobody's interest to increase the adversarial nature of the procedures, yet this is what the General Medical Services Committee acknowledges would result from its proposals.

Complaints should be seen as part of the system that assures quality and maintains standards. That requires an open, problem solving approach—and one that uses complaints to trigger reviews of standards. Agreement on philosophy would make agreement on procedures possible. These papers suggest that the profession has some distance to travel before recognising that an enlightened self interest would have it advertising for complaints and making sure that they were investigated independently. The public's expectations, raised by the citizen's charter, are unlikely to be satisfied with anything less.

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Paradoxical pain

When the metabolites of morphine are in the wrong ratio

The recent case of a consultant convicted of attempted murder for administering a lethal injection of potassium chloride to a patient in intractable pain[1] has highlighted the issue of pain that, contrary to expectation, does not respond to opiates. What is this so called "paradoxical pain?"

There are essentially two pathophysiological varieties of pain. The commoner is that in which non-neural tissues are damaged and specific nerve endings (nociceptors) within them stimulated; it is therefore usually called nociceptive pain. Impulses generated in nociceptors follow classic "pain pathways" to consciousness. Many of the synapses in these pathways, as well as some peripheral nociceptor terminals, are sensitive to opioid drugs. The other category is neurogenic pain,[2] exemplified by post-herpetic neuralgia, trigeminal neuralgia, painful diabetic neuropathy, reflex sympathetic dystrophy, and central (thalamic) pain, in which there is no nociceptor stimulation. Impulses are generated as a result of neural dysfunction and do not follow classic pain pathways. Not surprisingly, such pains are not very susceptible to the action of conventional analgesics, including opiates.[3]

Most nociceptive (tissue damage) pains should be susceptible to opiates, in proportion to the drug's ability to bind to opiate receptors in central pain pathways. However, an increasing number of cases are being reported in which patients' pain does not respond as expected to the most powerful opiates. Most such cases are in patients with malignant disease, but some occur in such non-malignant conditions as rheumatic disease (as in the patient of the convicted consultant).[1] It is these cases of nociceptive pain not receptive to opioids which have become known as "paradoxical pain"[4] or "overwhelming pain syndrome."[5]

Morphine is metabolised in the liver to its 3- and 6-glucuronides, both of which bind to opiate receptors. While the 6-glucuronide is a much more potent analgesic than morphine itself,[6] the 3-glucuronide antagonises the analgesic activity of 6-glucuronide in experimental animals.[7] Thus patients' analgesic response to morphine appears to depend on their 3-glucuronide:6-glucuronide ratio, the 6-glucuronide being responsible for the analgesic effect.[8,9] This ratio has been reported in several series of patients with malignant disease taking continuing oral doses of slow release morphine and having satisfactory levels of analgesia: in one series of 40 patients the mean plasma ratio was 5:1[8] and in another of 151 patients it was 4·5:1[10]; in another 40 patients the ratio in the cerebrospinal fluid was 6:1.[8] Children appear to produce greater quantities of 6-glucuronide, so their ratios are lower.[11]

In some cases of paradoxical pain—that is, patients with chronic nociceptive pain which does not respond to morphine—the ratio has been found to be much higher,[12] meaning that lesser quantities of active 6-glucuronide are produced in proportion to the inactive, or even antagonistic, 3-glucuronide. There thus seems to be quantitative differences in the metabolic processes concerned. We do not yet know whether such differences are inherent or are induced by disease or even by the drugs themselves, or what part is played by age. Nor do we yet know what the normal range of ratios is when morphine is given to naive subjects.

Methadone does not follow the same metabolic pathways as morphine, so it has been suggested that it may be useful in morphine resistant nociceptive (paradoxical) pain.[4] Our recent clinical experience has found that it is effective in such cases.[12]

A distinction must be made between nociceptive pain not responding to morphine (paradoxical pain) and overmorphinisation. The latter, although a mainly psychic state (albeit drug induced), can be mistaken for non-responsiveness because of the patient's agitation and apparent suffering; it responds rapidly to reduction in opioid dosage.

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Workfare and health

There might just be benefits

John Major, the British prime minister, created a political storm recently when he seemed in a speech to be supporting the idea of workfare—requiring the unemployed to work in exchange for benefits. The political right is attracted by workfare because it resents the idea that people might be paid by the state to do nothing. The left, in its turn, is appalled that people who are thrown out of work through no fault of their own should then be required to undertake slave labour to qualify for the benefits that are due to them. This polarisation causes the debate to stall, but in a world where unemployment is unlikely to fall fast or far and where so much work needs doing the idea may be worth exploring further. One way to examine the issue is to consider the possible effect on the health of unemployed people.

The harmful effects of unemployment on mental and physical health are well established,[1 2] although much less work has been done on the effectiveness of various interventions. Re-employment has been shown to produce measurable improvements in health,[1 3 4] but I know of no study of the effects of joining a workfare scheme. Yet we do know—particularly from the work of Jahoda[5] and Warr[1]—the factors associated with unemployment that seem to damage health. By examining the relation between these factors and workfare we may gain some insight into the likely effects on health of joining a workfare scheme. This is a poor substitute for a randomised controlled trial, but when the problem is so huge and immediate we need to gain insights where we can.

The main factor that links unemployment and poor health is poverty,[1 2] and workfare will do nothing here unless people are paid more than they would receive on benefit. Other factors identified by Jahoda and Warr as important for health may, however, be provided by workfare: these include a time structure to the day, social contacts outside the family, a sense of doing things with others, regularity, and "traction" (the quality that leads to the maxim "If you want something done quickly ask a busy person"). Whether workfare would provide other factors they identified is less certain. Thus the best employment provides purpose, social status, and a chance to develop new skills. If well organised, workfare might provide these needs, although the social status of being on workfare would probably be as bad as, if not worse than, that of being unemployed. Similarly, workfare might expose people to the stigma and frequent humiliations that are damaging to health.

Thus workfare might present some potential benefits to health, and it might also reduce the chances of an unemployed person becoming unemployable because of prolonged unemployment. But perhaps the greatest fear about workfare is that it might reduce the political spur to create jobs and lead to an army of people working in poorly paid conditions. Yet even this issue is complicated because the long term answer to the health problems associated with unemployment is probably to remove the distinction between paid employment and work.[2 6] At the moment paid employment (even if it's making rubber ducks for export) brings status and income, whereas work, which we all do to keep going and may well do voluntarily in our communities, carries neither income nor status. As the total amount of paid employment relative to the working population diminishes then we must either break down the barrier between employment and work or be condemned to live in a society permanently divided between the employed and growing numbers of the unemployed.

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