

After surgery for inguinal hernia patients should be encouraged to return rapidly to normal activities and work. "Take it easy" is the wrong advice.<sup>10</sup> After ambulatory surgery under local anaesthesia patients will usually be relatively pain free at three days, be able to resume normal activities at seven days, and be able to return to work at 10 days. With modern techniques and anaesthesia there is no justification for patients to remain off work for six weeks as previously recommended. Chronic groin pain has been increasingly recognised as a disability experienced by up to 5% of patients, causing notable effects on daily activities including walking, work, sleep, relationships with other people, mood, and general enjoyment of life.<sup>11</sup> Strategies to reduce the numbers of patients with chronic groin pain will include specific advice that modifies behavioural attitudes after surgery and technological improvements in mesh design.<sup>12</sup>

Stoppa has been the seminal thinker in developing not only the routine use of mesh for groin hernia surgery but also the concept of placing this into the preperitoneal space covering the myopectineal orifice through which all groin hernias protrude<sup>13</sup> (figure). These concepts have been fundamental in the development of preperitoneal techniques for repair of recurrent hernias and form the basis for laparoscopic hernia surgery.

The open mesh Lichtenstein operation has overcome the problems of technical difficulty and recurrence. Further improvements in inguinal hernia surgery will come about through increased use of out-patient facilities, attention to patient education,

improving recovery patterns and new prosthetic materials to enhance long term patient comfort.<sup>14</sup>

Andrew Kingsnorth *professor of surgery*

Derriford Hospital, Plymouth PL6 8DH  
(andrew.kingsnorth@phnt.swest.nhs.uk)

Competing interests: None declared.

- 1 Primates P, Goldacre MJ. Inguinal hernia repair: incidence of elective and emergency surgery, readmission and mortality. *Int J Epidemiol* 1996;25:835-9.
- 2 Kingsnorth AN, LeBlanc KA. *Management of abdominal hernias*. 3rd ed. London, New York: Edward Arnold, 2003:40-7.
- 3 Gallegos NC, Dawson J, Jarvis M, Hobsley M. Risk of strangulation in groin hernias. *Br J Surg* 1991;78:1771-3.
- 4 EU Hernia Trialists Collaboration. Mesh compared with non-mesh methods of open groin hernia repair: systematic review of randomized controlled trials. *Br J Surg* 2000;87:854-9.
- 5 EU Hernia Trialists Collaboration. Laparoscopic compared with open methods of groin hernia repair: systematic review of randomized trials *Br J Surg* 2000;87:860-7.
- 6 Beattie PK, Foley RJE, Callam MJ. Future of laparoscopic inguinal hernia surgery *Br J Surg* 2002;87:1727-8.
- 7 Schoots IG, van Dijkman D, Butzelaar RMJM, van Geldere D, Simons MP. Inguinal hernia repair in the Amsterdam Region 1994-1996 *Hernia* 2001;5:37-40.
- 8 Bay-Nielsen M, Kehlet H, Strand L, Malmstrom J, Andersen FH, Wara P, et al. Quality assessment of 26,304 herniorrhaphies in Denmark: a prospective nationwide study. *Lancet* 2001;358:1124-8.
- 9 National Institute for Clinical Excellence. Guidance on the use of laparoscopic surgery for inguinal hernias: London: NICE, 2001. (Technology appraisal guidance No.18.)
- 10 Shulman AG, Amid PK, Lichtenstein IL. Returning to work after herniorrhaphy. *BMJ* 1994;309:216-7.
- 11 Page B, Paterson C, Young D, O'Dwyer PJ. Pain from primary inguinal hernia and the effect of repair on pain. *Br J Surg* 2002;89:1315-8.
- 12 Junge K, Klinge U, Rosch R, Klosterhalfen B, Schumpelick V. Functional and morphologic properties of a modified mesh for inguinal hernia repair. *World J Surg* 2002;26:1472-80.
- 13 Stoppa RE. Wrapping the visceral sac into a bilateral mesh prosthesis in groin hernia repair. *Hernia* 2003;7:2-12.
- 14 Kingsnorth AN, Bowley DMG, Porter C. A prospective study of 1000 hernias: results of the Plymouth Hernia Service. *Ann R Coll Surg Engl* 2003;85:18-22.

## Health tourism

*Where healthcare, ethics, and the state collide*

No one should condone any fraudulent use of the NHS. However, following a consultation focused on the need to close perceived "loopholes that are open to abuse" by "health tourists," the government's announcement of its response also raised fundamental concerns regarding the balance between the potential responsibilities of doctors as employees and their ethical responsibilities to their patients.<sup>1</sup> Questions have also been asked regarding the actual extent of the problem of "health tourism." To date no serious quantitative study seems to have been made of this issue. The only figures available are anecdotal or based on extrapolation, and they vary considerably around the country. Further concerns relate to the applicability of suggested solutions and the public health implications of some of these.

Other than in the case of certain exemptions, specific regulations require NHS trusts to charge for health care that is provided to anyone who is "not ordinarily resident in the UK."<sup>2</sup> While this should be performed by overseas patient managers, pursuit of payment seems variably to have been achieved, with anecdotal reports suggesting various forms of abuse. Some examples cited in the government's consultation involve free hospital care for the dependants of people

exempt from charges and for visiting business people or their dependants.

Analysis of the responses to the government's consultation shows that respondents differed markedly on how certain key issues should be addressed.<sup>3</sup> Though there is a risk of overgeneralising, these may be categorised according to their emphasis on costs or on the rights of the patient, thus providing another illustration of this dichotomy in a health service where both costs and rights are emphasised more than ever before.

This tension is exacerbated by the environment within which all healthcare professionals—whether clinicians or managers—work and are increasingly held accountable. Specifically, doctors are bound by the ethical code that underpins the patient-doctor relationship, which is based on trust, confidentiality, and the primacy of patient needs, and these are also required by their regulatory body.<sup>4</sup> In its response to the government's consultation the British Medical Association clearly highlighted, and the government accepted, these ethical concerns, which effectively indicated an absolute requirement for any decision regarding eligibility for care to occur outside the context of the clinical consultation.<sup>5</sup>

Ethical problems regarding eligibility for treatment are most profoundly shown by the issue of the

*BMJ* 2004;328:60-1

proposed withdrawal of free non-emergency hospital care for asylum seekers whose applications to the Home Office have been rejected. A group with understandably high healthcare needs, they still may face long periods in the United Kingdom without financial support before being deported. The BMA cited ethical, clinical, and humanitarian grounds for not supporting this proposal. Similar considerations were felt to apply to the ongoing treatment of HIV positive patients (currently only testing is free), where as an added reason even cost effectiveness can be invoked. It is hoped that when legislation is prepared—it is scheduled to come into effect on 1 April 2004—it will reflect a more compassionate side of British society than some public statements on these issues thus far suggest.

The government must be credited with maintaining free emergency treatment for visitors and for free continuing treatment for certain infectious diseases such as tuberculosis, thus reducing the public health risk and the chances of drug resistance. But the latter decision emphasises the questionable nature of its decision on “non-ordinary residents” who are infected with HIV.

Contention surrounds the means by which the government may envisage these proposals being implemented. Despite the existing regulations it would seem that some trusts either may not pursue reimbursement or are not able to. Responses to the consultation vary in their recognition of the implications of more actively

requiring patients to confirm their residency status—from potentially discouraging them from seeking medical attention, to being accused of racial discrimination, to acting as a stimulus for a mandatory NHS patient card. When existing mechanisms may not have been applied adequately, rather than having failed, should not there be greater emphasis on these before more wide ranging legislation is enacted?

Clearly there is an urgent need to address the gap in essential knowledge about the size and nature of the problem and to suggest more specific solutions. Good governance, like good medicine, should be evidence based and proportionate.

Edwin Borman *consultant anaesthetist*

University Hospitals Coventry and Warwickshire NHS Trust, Coventry CV2 2DX

Competing interests: EB is the chairman of the BMA International Committee and is active in the integration of refugee doctors.

- 1 *Overseas visitors: National Health Service (Charges to Overseas Visitors) Regulations 1989: Consultation—summary of outcome.* www.doh.gov.uk/overseasvisitors/nhschargesconsult.htm (accessed 6 Jan 2004).
- 2 *The National Health Service (Charges to Overseas Visitors) Regulations 1989.* www.hms.gov.uk/si/si1989/Uksi\_19890306\_en\_1.htm (accessed 6 Jan 2004).
- 3 Department of Health. *National Health Service (Charges to Overseas Visitors) Regulations 1989: Consultation—summary of outcome.* London: DoH, 2003.
- 4 General Medical Council. *Good medical practice.* London: GMC, 2001.
- 5 British Medical Association. *Response to consultation on proposed amendments to the NHS (Charges to Overseas Visitors) Regulations 1989.* London: BMA, 2003.

## Preserving today's scientific record for tomorrow

### *LOCKSS marries age old concepts of librarianship with modern technology*

Let us save what remains: not by vaults and locks which fence them from the public eye and use in consigning them to the waste of time, but by such a multiplication of copies, as shall place them beyond the reach of accident.

Thomas Jefferson<sup>1</sup>

Information stored on paper can survive for millennia; information stored digitally today may not be recoverable this time next week. With seven million pages of new information added to the world wide web each day, the volatility of websites has emerged as an urgent problem, especially as websites are becoming the version of record for scientific journals. Three studies of links in peer reviewed journals all found their useful life to be a few years.<sup>2-4</sup> For Stuart Brand, president of the Long Now Foundation, “This is not a good way to run a civilization.”<sup>5</sup> For librarians whose mission is to transmit today's intellectual, cultural, and historical output to the future, it's fast becoming a nightmare. A project initiated by Stanford University Libraries is coming to their aid.

Called LOCKSS (for “Lots of Copies Keeps Stuff Safe”), it aims to provide librarians with a cheap and easy way to collect, preserve, and provide access to their own, local copy of web published material (<http://lockss.stanford.edu>). The project has developed software that converts a personal computer into a digital preservation appliance. If a publisher gives permission, the appliance collects content by slowly crawling the publisher's site in the manner of a search engine. Access

to the collected content is transparent; the appliance acts like a web cache to deliver requested pages from the publisher, or stored pages if the publisher fails to respond. In this way a library's readers see the subscribed pages at their original location, even though the publisher may no longer provide them there.

These appliances do not stand alone but are linked via the internet. They continually audit each other's content, comparing their versions by voting on its digest (a unique value computed from the content). If an appliance finds its copy outvoted and thus probably damaged, it can repair the damage from the appliances that outvoted it.<sup>6</sup> LOCKSS uses this process of mutual audit and repair as the alternative of careful backups and manual auditing of the backup copies is very expensive. Librarians' defence against irreplaceable loss has always rested on redundancy (one library burns but only one of many copies of a work is destroyed). LOCKSS provides for Jefferson's “multiplication of copies,” but with an electronic twist.

Initially using content provided by the *BMJ* and adding other titles at an increasing rate, beta testing of the LOCKSS system is under way at 80 libraries worldwide and should go into production in spring 2004. Some 50 publishers of academic journals are supporting the project.

As flaws in digital preservation systems may not come to light until it is too late to save their content, diversity is essential. Fortunately, LOCKSS is not the