

Why the UK's Medical Training Application Service failed

No convincing validation of the new process was provided



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Stung by near universal condemnation of its new process for short listing junior doctors for specialty training posts,¹ the UK government acted. On Tuesday 6 March it announced a review and by Friday 9 March it had accepted the review's first round of recommendations.

These recommendations were that the first round of interviews should continue as planned, but with a "strengthened" interview process. Applicants not short listed for interview can have their application form reviewed by a trained adviser, which might result in the offer of a first round interview. Applicants could now include CVs and portfolios to support their application.

The review also promised major changes to the second round, including changes to the application form and the scoring system. The revised approach will be fully tested and agreed with stakeholders before it is introduced.² The review expects to make its final report by the end of the month.

While the response has been commendably fast, it begs the question as to why if the flaws in the new proposals were so easily spotted—and rectified—they weren't noticed earlier. All parties to the hastily convened review—the government, the royal colleges, and the British Medical Association—were represented during the more leisurely deliberations over the original proposals.

Yet this is an episode with many more questions than answers, and deciding how to apportion blame will have to wait until the system is fixed. In the meantime, we are stuck in the middle of a process, with no final outcome to evaluate, awash with anecdote.

That some of the best and brightest of their generation of junior doctors had not been short listed for interview was cited as incontrovertible evidence that the new process needed fixing. Although numerous anecdotes support this, others support the opposite, with senior doctors believing that, "among their juniors, the best are those with most interviews and those with no offers are the least able."³

Undoubtedly, there were technical problems with processing so many applications, especially as a big bang computerised approach was preferred over a few closely observed pilots. Some people doing the short listing were insufficiently trained. Short listing timescales were absurdly short and coincided with half term holidays (just as the interviews will conflict with Easter holidays).

Short listers saw the responses to a single question,

not in the context of the rest of the form. Blind to previous employment history, they could not act on the premise that the best predictor of future performance is past performance. Answers to a series of hypothetical questions about clinical practice were weighted more heavily than verifiable, relevant achievements (thereby reducing the incentives for future doctors to work towards them).

The most serious charge against the new system is that it apparently lacked any validation. Did the application form ask about the sorts of things we consider relevant? Did it cover all aspects we want to measure? Was the overall score related to other variables in the way we would expect? Was the assessment repeatable and sufficiently objective to give similar results for different observers?⁴

We don't know—but we needed to know before the old system was jettisoned. Unfortunately, the process was shrouded in the utmost secrecy—even the questions and the scoring system were kept under wraps for as long as possible. (One short lister filed a bogus application just to get a look at the questions.)

The review is changing all this. It has recommended that ratios of numbers of applicants to jobs should be made available by specialty, entry level, and geography. It should also recommend the publication of the numbers of interviews offered to each successful applicant. If the anecdotes are correct, and the "best" candidates are being offered four, then deaneries can better calculate how many interviews they will need to offer to fill all their available positions.

To know how to react to claims that there are 8000 more applicants than jobs we need to know whether there are more, fewer, or the same number of jobs as beforehand, and where the doctors come from (the United Kingdom, the European Economic Area, or elsewhere). Is the process being "swamped" by applications from non-UK doctors? This is the elephant in the room, which no one except the international medical graduates themselves seem ready to talk about.⁵ Will the final appointments be made totally on merit, they wonder, or will the interviewing panel feel compromised by the fact that UK taxpayers have contributed £250 000 (€370 000; \$480 000) towards training the not quite so good UK doctor in front of them?

It's early days, but it looks like the review is favouring a return to what existed before—presumably on the grounds that it was tried and tested. But the little testing that has been done suggested that the old ways had their own biases. Yet the recent past is already being

constructed as a golden age, with everyone getting the job in the specialty they wanted, in the region they wanted, and with spouses being welcomed into jobs in the same deanery—which is of course nonsense.

Coincidentally, this is the week when the Match (the United States' annual scheme for matching medical graduates to residency programmes) releases its results, something that has been happening without much rancour since 1952. Closer to home, UK general practitioners have devised machine readable tests (sat by all applicants on the same day) as the gateway to selection interviews.

For the time being, UK junior hospital doctors and those who administer their selection into training positions may feel too traumatised to look forward to any radically new proposals. But they might look sideways

at how other countries (and other doctors within their own country) manage to fit applicants to positions. They should avoid looking back.

- 1 Combes R. How specialist training reform sparked crisis of confidence. *BMJ* 2007;334:508-9.
- 2 Department of Health. *Review of the Medical Training Applications Service selection process—government response to concerns*. Press release 10 March 2007. www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=270216&NewsAreaID=2&NavigatedFromDepartment=False.
- 3 Eccles SJA. In defence of MMC and MTAS. Rapid response to Coombes R. How specialist training reform sparked crisis of confidence. *BMJ* 2007;334:508-9. www.bmj.com/cgi/eletters/334/7592/508#162034.
- 4 Bland JM, Altman DG. Validating scales and indexes. *BMJ* 2002;324:606-7.
- 5 Rapid responses to: Coombes R. How specialist training reform sparked crisis of confidence. *BMJ* 2007;334:508-9. www.bmj.com/cgi/eletters/334/7592/508#162034.

Indwelling stents after ureteroscopy

Can cause significant postoperative morbidity and should be used with caution



In this week's *BMJ*, Nabi and colleagues¹ present a meta-analysis of randomised controlled trials of the insertion of indwelling stents after uncomplicated ureteroscopy. During the past quarter of a century the development and use of endoscopic equipment in urology has increased. Semirigid and flexible instruments have been developed with working channels to allow passage of biopsy forceps, baskets, and laser fibres. Stones in the ureter, and even within the pelvis and peripheral calyces of the kidney, can now be fragmented and extracted. Upper tract transitional cell carcinomas can be diagnosed and, where indicated, treated endoscopically.

There remains controversy, however, about whether indwelling stents should be routinely inserted after these procedures. Balloon dilatation of the ureteric orifice, stone fragmentation and basket retrieval of fragments, biopsy, and destruction of mucosal lesions can all cause trauma to the ureter. In patients without stents this trauma can result in postoperative obstruction of the ureter, which requires emergency upper tract decompression. As an alternative to an indwelling stent, postoperative drainage of the upper tract can temporarily be achieved with a fine bore catheter. This avoids the need for a second procedure to remove the stent, but does require the patient to be admitted overnight at least.

Nabi and colleagues found that people who had stents inserted were significantly more likely to have haematuria (relative risk 2.18, 95% confidence interval 0.72 to 6.61), and lower urinary tract symptoms (dysuria: 2.25, 1.14 to 4.43; frequency and urgency: 2.00, 1.11 to 3.62) than people without stents.² For the outcome of flank pain, significant heterogeneity between trials precluded pooling of results. No sig-

nificant difference was seen in stone passage, stricture, formation, readmission rates, or emergency surgery. The review highlights the paucity of well designed trials, the heterogeneity of the procedures performed, and the lack of definition of the label "uncomplicated ureteroscopy." It also found a lack of evidence for the use of any particular size or composition of ureteric stent with regard to outcome.

Pain from stents is usually related to mechanical bladder irritation and is felt in the suprapubic and genital area. Alternatively, pain may be felt over the kidney itself. In our own meta-analysis³ of the use of stents in recipients of renal transplants, pain was not an important feature of their use. This may be because the transplanted kidney has no connection to the recipient's nervous system, and the ureteric orifice of the transplant is high on the anterior wall, away from the sensitive trigone.⁴ Interestingly, Nabi and colleagues found no significant difference in flank pain between the groups with and without stents.

Another problem is that stents can be forgotten, which can result in blocked kidneys, intractable infections, or unpleasant urinary symptoms. Fail safe systems must be in place to record the details of patients with stents in situ. In a randomised controlled trial of the use of stents in India, 7% of patients discharged with stents either failed to attend for routine follow-up or their stents were forgotten and they presented late with encrustation and infection.⁵ In such cases, open stent removal may be needed. At least two cases of nephrectomy have been reported when stents became blocked and could not be separated from the ureter.⁶

So what should clinicians do in the light of the available evidence? The decision to insert a stent at the end of a ureteroscopic procedure is a balance between

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the known morbidity of stents and the perceived risk of ureteric obstruction if a stent is not inserted. As Nabi and colleagues point out, the spectrum of ureteric trauma after ureteroscopy is wide. An accepted grading system, based on operative and radiological findings, would greatly improve the ability of clinicians to compare results and techniques, and ultimately to produce validated guidelines for the use of stents. However, such a grading system may prove difficult to define and has hitherto eluded the urological community.

As technology advances, we may be able to reduce the trauma of ureterorenoscopy and potentially reduce the need for stent insertion and its associated morbidity. Further well designed trials in people with stones of various size and anatomical position, assessing

retrieval methods with different sizes and materials of stents should help guide future practice.

- 1 Nabi G, Cook J, N'Dow J, McClinton S. Outcomes of stenting after uncomplicated ureteroscopy: systematic review and meta-analysis. *BMJ* 2007 doi: 10.1136/bmj.39119.595081.55.
- 2 Huffman JL, Bagley DH, Lyon ES. Extending cystoscopic techniques into the ureter and renal pelvis. Experience with ureteroscopy and pyeloscopy. *JAMA* 1983;250:2002-5.
- 3 Wilson CH, Bhatti AA, Rix DA, Manas DM. Routine intraoperative ureteric stenting for kidney transplant recipients. *Cochrane Database Syst Rev* 2005(4):CD004925.
- 4 Kumar A, Verma BS, Srivastava A, Bhandari M, Gupta A, Sharma R. Evaluation of the urological complications of living related renal transplantation at a single centre during the last ten years: impact of the double J stent. *Transplantation* 2000;164:657-60.
- 5 Kumar A, Kumar R, Bhandari M. Significance of routine JJ stenting in living related renal transplantation: a prospective randomised study. *Transplant Proc* 1998;30:2995-7.
- 6 Dominguez J, Clase CM, Mahalati K, MacDonald AS, McAlister VC, Belitsky P, et al. Is routine ureteric stenting needed in kidney transplantation? A randomized trial. *Transplantation* 2000;70:597-601.

Perinatal death in twins

Should all term multiple pregnancies be delivered by elective caesarean section?



BSIP/ASTER/SPL

Twin pregnancies are becoming more common because of the increasing use of assisted reproduction technologies.¹ They are associated with an eight to tenfold increase in the perinatal mortality rate,² mainly because 40-70% of twins are born preterm.³ However, the safety of term vaginal delivery for twins has long been of concern; some large epidemiological studies have suggested that the second twin is at especially high risk of death.⁴ Complications associated with the second twin include the longer second stage, compound presentation leading to trauma during delivery, cord prolapse, and premature separation of the placenta.⁵ However, the only randomised controlled trial identified by a Cochrane review⁶ of caesarean section compared with vaginal delivery in twins⁷ and other small retrospective studies⁸ have not confirmed clinicians' subjective impressions of poor outcome in the second twin.

The study by Smith and colleagues in this week's *BMJ* is welcome for the light it sheds on this topic.⁹ They studied twin pregnancies in the United Kingdom from 1994 to 2003 in which one of the twins died during or after labour for reasons other than congenital abnormality (1377 pregnancies). Before 37 weeks' of gestation, the two babies were at equal risk, but at term the risk of death was higher in second twins (odds ratio 2.3, 95% confidence interval 1.7 to 3.2, $P < 0.001$). This was even more marked for deaths due to "intrapartum anoxia" or trauma (3.4, 2.2 to 5.3). Vaginally delivered second twins had a fourfold higher risk than first twins of death due to intrapartum anoxia. The authors suggest that these deaths might be prevented by planned elective caesarean section for all term twin pregnancies. Should this be adopted as routine practice?

Before recommending routine caesarean delivery to reduce risk to the baby, we must balance this against

any potential increase in risk to the mother. The use of regional anaesthesia, prophylactic antibiotics, and thromboprophylaxis, plus improved suture materials and techniques for controlling haemorrhage have improved safety. Recently, a working party of the National Institutes of Health in the United States¹⁰ found no evidence that elective caesarean section increased risk to a healthy mother having her first delivery compared with planned vaginal birth. They highlighted that critics of high caesarean section rates often compare successful vaginal births with all caesareans, including those performed in an emergency during labour. The consensus group stated, "the evidence consistently indicates a lower risk of surgical complications in elective cesarean delivery than in unplanned cesarean delivery resulting from attempted vaginal delivery. Among planned vaginal delivery... there is a significantly higher rate of obstetric trauma than among planned cesarean delivery. The net direction of the evidence thus favors planned cesarean delivery."

Overall, caesarean section rates continue to rise across the globe¹¹ and now exceed 25% in many places. In high and medium income countries, higher caesarean section rates are not associated with higher maternal mortality, and in low income countries, those with the highest caesarean section rates have the lowest levels of maternal and neonatal mortality.¹² A large randomised trial of elective caesarean section for term breech presentation found a reduction in perinatal mortality of two thirds, with no increase in adverse outcomes in mothers.^{12 13} These findings rapidly changed practice in many countries, with beneficial results.¹⁴

In relation to twin pregnancies, in the UK obstetricians already seem to be voting with their scalpels. In the northwest London database of about 40 000 births

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each year, the overall proportion of caesarean sections in term pregnancies rose from 10.5% in 1988 to 20.8% in 2000. In parallel, the overall proportion of caesarean sections in term twin pregnancies rose from 22.5% in 1988 to 60% in 2000 (more than half of these being elective). At the Chelsea and Westminster Hospital during 2006, 114 sets of twins were born at greater than 36 weeks' gestation; 92 (81%) were delivered by caesarean section, and 70 (76%) of these were elective. This is an international trend; as long ago as 1995-2000 in Beirut the caesarean section rate had reached 76.8% in twins born after in vitro fertilisation and 58% in spontaneous twins,¹⁵ while a recent paper from Thailand reported an overall rate between 1993 and 2004 of 73.9% (90.6% after in vitro fertilisation and 71.3% for spontaneous pregnancies).¹⁶ A randomised controlled trial of elective caesarean section for twin pregnancies is currently under way, coordinated by the University of Toronto maternal infant and reproductive health research unit (which carried out the term breech trial). On the basis of Smith and colleagues' study, the results are likely to show a similar benefit from caesarean section as in the breech trial; however, it is important that we obtain evidence from randomised controlled trials before caesarean section for twin pregnancies at term becomes universal and a trial becomes impossible.

- 1 El Toukhy T, Khalaf Y, Braude P. IVF results: optimize not maximize. *Am J Obstet Gynecol* 2006;194:322-31.
- 2 Luke B, Brown MB. The changing risk of infant mortality by gestation, plurality, and race: 1989-1991 versus 1999-2001. *Pediatrics* 2006;118:2488-97.
- 3 Blondel B, Macfarlane A, Gissler M, Breart G, Zeitlin J. Preterm birth and

- multiple pregnancy in European countries participating in the PERISTAT project. *Br J Obstet Gynaecol* 2006;113:528-35.
- 4 Wen SW, Fung Kee FK, Oppenheimer L, Demissie K, Yang Q, Walker M. Neonatal mortality in second twin according to cause of death, gestational age, and mode of delivery. *Am J Obstet Gynecol* 2004;191:778-83.
- 5 Neilson JP, Bajoria R. Multiple pregnancy. In: Chamberlain G, Steer PJ, eds. *Turnbull's obstetrics*. 3rd ed. London: Churchill Livingstone, 2001:229-46.
- 6 Crowther CA. Caesarean delivery for the second twin. *Cochrane Database Syst Rev* 2000;(2):CD000047.
- 7 Rabinovici J, Barkai G, Reichman B, Serr DM, Mashiach S. Randomized management of the second nonvertex twin: vaginal delivery or cesarean section. *Am J Obstet Gynecol* 1987;156:52-6.
- 8 Usta IM, Nassar AH, Awwad JT, Nakad TI, Khalil AM, Karam KS. Comparison of the perinatal morbidity and mortality of the presenting twin and its co-twin. *J Perinatol* 2002;22:391-6.
- 9 Smith GC, Fleming KM, White IR. Birth order of twins and risk of perinatal death related to delivery in England, Northern Ireland, and Wales, 1994-2003: retrospective cohort study. *BMJ* 2007 doi: 10.1136/bmj.39118.483819.55.
- 10 National Institutes of Health state-of-the-science conference statement: cesarean delivery on maternal request March 27-29, 2006. *Obstet Gynecol* 2006;107:1386-97.
- 11 Althabe F, Sosa C, Belizan JM, Gibbons L, Jacquieroz F, Bergel E. Caesarean section rates and maternal and neonatal mortality in low-, medium-, and high-income countries: an ecological study. *Birth* 2006;33:270-7.
- 12 Hannah ME, Hannah WJ, Hewson SA, Hodnett ED, Saigal S, Willan AR. Planned caesarean section versus planned vaginal birth for breech presentation at term: a randomised multicentre trial. Term Breech Trial Collaborative Group. *Lancet* 2000;356:1375-83.
- 13 Su M, Hannah WJ, Willan A, Ross S, Hannah ME. Planned caesarean section decreases the risk of adverse perinatal outcome due to both labour and delivery complications in the term breech trial. *Br J Obstet Gynaecol* 2004;111:1065-74.
- 14 Rietberg CC, Elferink-Stinkens PM, Visser GH. The effect of the term breech trial on medical intervention behaviour and neonatal outcome in the Netherlands: an analysis of 35 453 term breech infants. *Br J Obstet Gynaecol* 2005;112:205-9.
- 15 Nassar AH, Usta IM, Rechdan JB, Harb TS, Adra AM, Abu-Musa AA. Pregnancy outcome in spontaneous twins versus twins who were conceived through in vitro fertilization. *Am J Obstet Gynecol* 2003;189:513-8.
- 16 Kor-anantakul O, Suwanrath C, Suntharasaj T, Getpook C, Leetanaporn RJ. Outcomes of multifetal pregnancies. *Obstet Gynaecol Res* 2007;33:49-55.

Caring for the oldest old

As the population ages the costs of care will rise

When a 70 year old woman collects a prescription from the pharmacist, no one is surprised. But, it is for her mother. And she must rush back because her mother doesn't see very well, is a little confused, and her daughter doesn't like to leave her for too long on her own. Times change. We are all getting older and living longer so our traditional age structured model of society has had to evolve. No longer are people young, middle aged, and old, but increasingly they are also the "oldest old." In this week's *BMJ*, Robine and colleagues present a "four age population model," whereby the future long term care needs of the oldest people can be estimated.¹ These frail elderly people, whom we are likely to become, are increasingly important as consumers of health resources and a focus for future care.

The irony of longer life is an increasing burden of health. We do not know how ageing will affect health. Two competing theories exist. The first is the compression of morbidity,² where we will live longer with fewer years of disability before we die. The second suggests an ageing population with more than one chronic condition.

The future is probably somewhere between the two. Coronary heart disease may have declined, but cancer, dementia, and HIV are increasing. And although coronary heart disease and cancer will still cause death, they will also become chronic managed diseases. Death from heart attack will be superseded by associated chronic conditions, such as angina and chronic health failure.³ The World Health Organization estimates a doubling of chronic disease in the over 65s by 2030.⁴ And a recent report commissioned by the Alzheimer's Society⁵ estimates that by 2025 more than a million people in the United Kingdom will have dementia, and by 2050 this figure will reach 1.7 million. This increase will create even greater demand for acute care, management of chronic disease, and social care with the inevitable increase in costs.

Caring is expensive. Informal care in the community is often unseen and unmeasured, yet the people who provide this care carry the greatest burden of all. We need to face up to the huge cost of care in both the formal and informal sector. In England it is estimated that

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8.5 million people provided informal care in 2000, 3.4 million of whom cared for people over 65 years.⁶ This is a huge economic investment and these people do not appear in any economic balance sheet. Furthermore, as the retirement age increases and people have to work longer hours, this social capital will soon reach its limits. And with the crisis in pensions, there will be less money for people to buy additional care.

In the United Kingdom, an estimated 3.5 million more carers will be needed by 2037 to care for those aged 75 and over.⁷ Robine and colleagues, in their proposed four age model, introduce the concept of the oldest old support ratio. They make the assumption that the “sandwich age cohort”—the young retired—will care for the oldest people. The statistical model is attractive and is one measure of the burden of caring.

What this paper cannot tell us is if this generation will be around to help, or indeed, will be willing to help. The responsibility usually falls to families first of all, and the reality is that the carer is usually a daughter or daughter in law. But women have changing aspirations, and geographical and social mobility together with household

restructuring mean that families are increasingly fragmented. Hundreds of miles often separate parents and children. If no family is available there are two alternatives: neglect or formal care.

Robine and colleagues are right to argue that policy makers need to anticipate trends in the number of oldest people. Demand for care is not about age in itself, and they point out that their cut off age of 85 and above is arbitrary. Forecasting care needs has less to do with how old people are than with who they are and how old they will be when they are expected to die. Major differences in rates of mortality and morbidity still occur between groups—for example, according to social class, sex, ethnic origin, and geographical region—and the oldest people in each group will vary in age. Those most in need of care will need care at an earlier age.

These problems are important not only in Switzerland and the United States but also in the UK and most Western states where life expectancy is increasing. Social change and economic wellbeing mean that wealthy countries have postponed their healthcare liabilities until later. First world countries have swapped infant mortality and childhood illness for the burden of care of the elderly. Caring for the oldest old is the price of affluence.

- 1 Robine J-M, Michel J-P, Herrmann FR. Who will care for the oldest people in our ageing society? *BMJ* 2007 doi: 10.1136/bmj.39129.397373.BE.
- 2 Fries JF. Aging, natural death, and the compression of morbidity. *N Engl J Med* 1980;303:130-6.
- 3 Bellaby P. Can they carry on working? Later retirement, health, and social inequality in an aging population. *Int J Health Serv* 2006;36:1-23.
- 4 Batty D. Reid unveils chronic care plans. *Guardian* 11 March 2004. <http://society.guardian.co.uk/health/story/0,7890,1167386,00.html>.
- 5 Alzheimer's Society. Major new report shows impact of dementia in the UK. www.alzheimers.org.uk/index.htm.
- 6 Beesley L. *Informal care in England*. London: King's Fund, 2006.
- 7 Carers UK. (2004). Ten facts about caring. www.carersuk.org/Aboutus/Whoarecarers/Tenfactsaboutcaring.

Reed Elsevier's arms trade

Scientific communities must work together to prevent the sale of arms

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In a recent editorial in the *Journal of the Royal Society of Medicine*, Richard Smith drew attention once again to the paradoxical and disturbing association between Reed Elsevier, a huge global publishing company, and the international arms trade.¹ While promoting world health through its publications, including the *Lancet*, Reed Elsevier also organises international trade fairs for the arms industry. By facilitating the sale of armaments, Reed Elsevier is directly implicated in causing untold damage to health. This hypocrisy is well illustrated by Smith's “absurd” example of an imaginary tobacco company that publishes health journals to increase tobacco sales. Sadly, his example is neither absurd nor imaginary. In 2005, an article in the *Lancet* reported undisclosed relations between the tobacco industry and the health related journal *Indoor and Built Environment*.²

Reed Elsevier's purpose in publishing the *Lancet* and other health related journals is not to covertly support arms trade revenues. Reed Elsevier, like any other company, aims to make money through business activities that have diversified over time. But its activities in organising exhibitions for the arms trade are only a small part (we believe about 1%) of its turnover. Why would Reed Elsevier risk alienating the essential part of its money making business—the health, science, and education sector—to allow a continued association with a much smaller asset—the arms trade?

For alienation is what's happening. In the short term, the publicity surrounding this controversy may be good for Reed Elsevier, if all publicity really is good publicity. In the long term, however, the consequences of the debate could be disastrous for the company's reputation



TONY KYRIACOU/REX

and profits, and, if journals do more good than harm, for world health.

In September 2005, when the *Lancet* first highlighted Reed Elsevier's links with the arms trade, there was an appropriate outcry from the journal's international advisory board and global opinion leaders.^{3,4} More recently, condemnation of Reed Elsevier has come in a letter to the *Times* signed by 140 prominent academics,⁵ in rapid responses to a *BMJ* news article,⁶ and via an online petition that has collected approaching 1000 signatures (<http://idiolect.org.uk/elsevier/petition.php>).

This continued and growing negative publicity could have several possible effects. The inevitable damage to Reed Elsevier's global corporate reputation will probably lead to lost business opportunities and thus reduced profits. Damage to the reputation of Reed Elsevier publications, such as the *Lancet*, may lead to fewer high profile submissions, for which journals fiercely compete, and so a reduction in essential revenue derived from the sale of reprints. Furthermore, damage to the reputations of health journals including the *Lancet* could have a negative impact on global health, which these journals strive so hard to improve.

It has not been a straightforward decision to speak out directly on this issue. The *BMJ* is often seen as being in competition with the *Lancet* and might be seen to be cashing in on the *Lancet*'s discomfort. But the *BMJ* has no wish to see the *Lancet* diminished. The two publications are in many ways complementary, and together they represent important evidence of the continuing influence of British publishing and science around the world. Collaborations between the *BMJ* and the *Lancet* have repeatedly helped raise awareness of important issues in health care and research,⁷⁻¹⁰ and more are planned. Anyone interested in global health should want the *Lancet* to continue to thrive unhampered by such disastrous bedfellows. As Smith says in his recent rapid response to a *BMJ* news article on this subject, "Are people not bothered or are they scared to speak up? Or perhaps people think that it would be disloyal to the journals, which include the *Lancet*. If people are

wary of being disloyal I urge you not to be. You do nothing but good for the *Lancet* and the other journals by speaking up."⁶ So the *BMJ* joins the *Journal of the Royal Society of Medicine* in calling for action against Reed Elsevier.

The scientific and health communities with which Reed Elsevier is linked in a symbiotic relationship have a clear opportunity to exert their influence. As a group, these communities have the power to influence corporate strategy. They must sign petitions such as the one identified here, the societies for which Reed Elsevier publishes journals must look for alternative publishers, and editors of journals must express their disgust at the company's arms trade activities through collectives such as the World Association of Medical Editors (<http://www.wame.org/>). Furthermore, academic and industry funded researchers should now agree not to submit their high profile randomised control trials to Reed Elsevier journals until links with the arms trade are ended. They should make these decisions public, thus ending their tacit support for the company's links with the arms trade. Direct loss of revenue in this way would quickly identify to Reed Elsevier that the scientific world will no longer tolerate its warmongering and health damaging business activities.

- 1 Smith R. Reed-Elsevier's hypocrisy in selling arms and health. *JR Soc Med* 2007;100:114-6.
- 2 Game D, Watson M, Chapman S, Byrne F. Environmental tobacco smoke research published in the journal *Indoor and Built Environment* and associations with the tobacco industry. *Lancet* 2005;365:804-9.
- 3 Feder G, Rohde J, Sebastian M, et al. Reed Elsevier and the international arms trade. *Lancet* 2005;366:889.
- 4 The *Lancet* and the *Lancet's* International Advisory Board. Reed Elsevier and the arms trade. *Lancet* 2005;366:868.
- 5 *Times* higher education supplement. *Ethics before arms*. www.thes.co.uk/search/story.aspx?story_id=2035528.
- 6 Dyer O. Boycott publisher because of holdings in arms trade, readers told. *BMJ* 2007;334:389.
- 7 Farthing M, Horton R, Smith R. Research misconduct: Britain's failure to act. *BMJ* 2000;321:1485-6.
- 8 Godlee F, Horton R, Smith R. Global information flow. *BMJ* 2000;321:776-7.
- 9 Horton R, Smith R. Time to register randomised trials. *BMJ* 1999;319:865-6.
- 10 Horton R, Smith R. Time to redefine authorship. *BMJ* 1996;312:723.