investigation rather than as an immediate investigation in the acute setting.

We would also like to thank Madan for the guidance, and we will look into the possibility of checking Taipan venom time in this patient.

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Simon Liu and colleagues (*Clin Med* June 2011) should have clarified that the quoted number needed to treat (NNT) of 3.1 with thrombolysis did not refer to the more often used group outcome comparison of 'independent' versus 'dependent and dead', but to expert derived estimates for one additional patient to have a better outcome by one or more grades on the mRS (modified Rankin Score).^{1,2} This would include patients moving from mRS 5 to mRS 4, for example, who would remain in the 'dependent and dead' category of outcome.

Jeffrey Saver's 2004 modelling paper concluded 'for every 100 patients with acute stroke treated with tissue plasminogen activator, approximately 32 will have a better final outcome and three have a worse final outcome as a result of treatment'. Thrombolysis has the potential to harm as well as cure! Saver also stated in the paper 'the NNT for tPA treatment to avert one case of dependence or death after stroke, defined as an mRS of 2 or more, is 8.4' based on the NINDS study. A NNT of 8–10 is probably more recognised by physicians for the effectiveness of thrombolysis.

Work from Australia documenting the real-life three-month outcomes after thombolysis suggests that Saver's experts may have underestimated the benefits of thrombolysis in the group of patients presenting with more severe strokes.³ Bray and colleagues in Melbourne found that of 24 patients presenting with stroke and a mRS of 4, the outcome at three months was that five of the group had an mRS of 0, 6 mRS

of 1, 3 mRS of 2, 5 mRS of 3 and 1 an mRS of 4. Only four patients had a worse outcome with one dying (mRS 6) and three having a mRS of 5. For the 43 patients presenting with a mRS of 5 there were similar favourable improvements; 19 returned to independence (mRS 0–2) at three months post-stroke, with a further six dying and five remaining on a mRS of 5.

The access to hyper acute stroke care and thrombolysis in London has improved in recent years. Those people with severe strokes in particular need to get to hospital as soon as possible because early thrombolysis could make a major difference to their future care needs.

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- NINDS rt-PA Stroke Group. Tissue plasminogen activator for acute ischaemic stroke. N Engl J Med 1995;333:1581–7.
- 3 Bray JE, Coughlan K, Bladin C. Thrombolytic therapy for acute ischaemic stroke: successful implementation in an Australian tertiary hospital. *Int Med J* 2006;36:483–8

The NHS: assessing new technologies, NICE and value for money

Editor – I read with interest Stevens' article (*Clin Med* June 2011 pp 247–50) giving an historical perspective of the inception of the National Institute for Health and Clinical Excellence (NICE) and development of its core activities. I would question, however, the assertion that NICE 'held its ground' over industry pressure to approve Relenza®, when less than a year after its first decision not to approve, it made a u-turn and approved (in admittedly a restricted way) the use of the drug for the following flu season, much to the horror of many GPs. While the relevant paragraph is factually correct, as it refers to its 'first'

decision, I would not want the casual reader to be unaware of the conclusion to that particular episode. NICE has had many question the legitimacy of its decisions made in a maelstrom of political and industry pressures.² One wonders whether an interpretation of the coalition government's plan to devolve rationing decisions to a more local level is an attempt to escape that perception.

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References

- Bosely S. GPs rebel against flu drug advice. Guardian 11 December 2000.
- 2 Syrett, K. A technocratic fix to the 'legitimacy problem'? The Blair government and health care rationing in the United Kingdom. *J Health Politics Policy Law* 2003;28:715–46.

In response

Patel is right that NICE exists in a world of 'a maelstrom of political and industry pressures'. But it makes every attempt to remain fair and objective. Not least is the appointment of independent appraisal committees who are protected from most media exposure.

It is true that our Relenza® (zanamavir) for influenza decision changed between the very first (strictly pre-NICE) appraisal and technology appraisal No15 (TA15) a year later.1 But then the evidence changed too. The first appraisal was informed by three randomised controlled trials, all three of which excluded 'at-risk' patients. The nub of the appraisal concerned precisely these patients - the immunocompromised, the elderly or those with other co-morbidities. In TA15 the evidence base included 800 at-risk individuals, including one trial of people with chronic respiratory disease. This was sufficient to reasonably model the effectiveness and cost-effectiveness of zanamavir not just on ameliorating an episode of flu, but in reducing the likelihood of exacerbating the co-morbidity.

TA15, therefore, recommended zanamavir for the immunocompromised, those over 65, and those with chronic lung disease, significant cardiovascular disease, or diabetes. But it maintained the 'not recommended' conclusion for otherwise healthy adults.

ANDREW STEVENS

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Reference

1 National Institute for Clinical Excellence. Guidance on the use of Zanamavir (Relenza) in the treatment of influenza (TA15). London: NICE, 2000.

Clinical and scientific letters

Letters not directly related to articles published in *Clinical Medicine* and presenting unpublished original data should be submitted for publication in this section. Clinical and scientific letters should not exceed 500 words and may include one table and up to five references.

Factors influencing recruitment to rheumatology

Attracting suitable candidates to rheumatology is vital to maintaining standards of service. We noted that recently there have been relatively low numbers of applications for rheumatology at specialty training year 3 (ST3) level, and so we decided to undertake a study looking at factors affecting career choices, and doctors' attitudes to rheumatology as a specialty. An online questionnaire was developed using Survey Monkey, and emailed to doctors at foundation year (FY) 1, FY2, core medical training (CMT) and basic specialty training (BST) levels working in two trusts within the Eastern region – Norfolk and Norwich

University Hospital and Addenbrooke's Hospital, Cambridge.

Key findings were as follows. Junior doctors are making decisions about which specialty to choose early on in their careers. Rheumatology appears to be on the radar, with nearly 70% of respondents having considered, or who are considering, it as a career. However, reduced exposure to rheumatology inpatients, and less junior doctor posts, limits experience gained. It is vital that we take steps (see Box 1 for ideas) to raise the profile of rheumatology and ensure that we continue to attract strong candidates in order to maintain a high standard of care for patients.

Background

Attracting suitable candidates to rheumatology is vital to maintaining standards of service. We noted that recently there have been low numbers of applicants to rheumatology at ST3 level, so decided to undertake a study looking at factors affecting career choices, and doctors' attitudes to the specialty.

Method

An electronic questionnaire was emailed to doctors at FY1, FY2, CMT and BST levels working in two trusts within the Eastern region – Norfolk and Norwich University Hospital and Addenbrooke's Hospital, Cambridge. It focused on three areas; anonymous demographic information, reasons behind career choices and attitudes to rheumatology as a specialty.

Results

Out of 270 doctors, 90 (34%) completed the questionnaire; of these 48% were male and

Box 1. How can we improve recruitment to rheumatology? Emergent themes from qualitative responses.

Increase exposure of medical students Increase exposure of junior doctors Offer taster weeks

Research projects/audits in rheumatology Sell itself as a speciality at career evenings Provide teaching/practical skills sessions Offer positive role models 52% female. At the time they responded, 77% of doctors had decided on the specialty in which they wished to work. Asked at which point in their careers they had made this choice responses were as follows: 10% before entering medical school, 26% during medical school, 36% during FY1, 16% during FY2 and 22% during CMT/BST.

Factors most important when choosing a future career were an interest in the specialty and job satisfaction. Less important were opportunities for flexible/part-time training, favourable working hours and good monetary rewards. Of respondents, 67% said that they were considering/had considered choosing rheumatology. Among those who considered it, reasons for doing so included an interest in the specialty, exposure as a medical student and favourable working hours. A freetext box asked for suggestions to improve recruitment to rheumatology. Qualitative responses were analysed and emergent themes are highlighted in Box 1.

Discussion

This study highlights a number of key points. The majority of doctors have decided on which specialty they wish to choose by the time they enter CMT or BST. They are keen to find an interesting specialty with good job satisfaction, and for many rheumatology is on the radar. However, applications at ST3 level are low compared to many other specialties. This is despite the fact that rheumatology compares favourably with other specialties in terms of job satisfaction.¹

Administering the survey electronically allowed us to target a large number of doctors. The overall response rate is lower than the mean of 54% seen in other published studies without monetary rewards,² perhaps reflecting the electronic method of delivery – often response rates for postal questionnaires are higher than that for electronic communications.³ Response bias cannot be excluded as a factor which may have influenced the findings, but there were many responses from doctors who had, and had not, considered rheumatology as a career choice.

Junior doctors are making decisions about which specialty to choose early on in their careers. Reduced exposure to rheumatology inpatients, and less junior doctor