PostScript

LETTERS

Screening for hypertension in the emergency department

I read with interest the paper by Fleming *et al*¹ concerning screening for hypertension in the emergency department. The important public health issues and current emphasis on screening are well illustrated in this paper. However, there is increasing debate concerning the appropriateness of routine enquiry, as debated in the commentary by Lee.² If screening for a condition is warranted it should, at least approximately, fulfil the Wilson criteria.³ The diagnosis of hypertension fails to meet these criteria in a number of important regards.

Firstly, the endpoint of screening is to establish the diagnosis so that prevention of an adverse endpoint is achieved on a population basis. In this paper only 2.5% of the patients' general practitioners were directly informed of the diagnosis, and there are no data on the clinical results for these patients. The screening has become an end (to achieve diagnosis), not a means. Secondly, systematic testing of a population for hypertension should be performed on a continuous and total basis, and this paper¹ reveals that this is difficult to achieve. Lastly, the case-finding needs to be economically balanced in relation to diagnosis and treatment and possible total health care expenditure, and this is not discussed.

Although universal screening for hypertension in the emergency department may not be appropriate for the reasons stated above, or desirable for reasons related to service configuration, targeted screening for an essentially asymptomatic disease will fail almost by definition. This is not to say, however, that opportunistic detection in the emergency department is not appropriate.

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References

- 1 Fleming J, Meredith C, Henry J. Detection of hypertension in the emergency department. *Emerg Med J* 2005;22:636-9.
- 2 Lee J. Should emergency departments really be screening for hypertension? *Emerg Med J* 2005;22:640.
- 3 Wilson JMG, Junger G. *Principles and practice of screening for disease* (Public health papers No 34). Geneva: World Health Organization, 1968.

Simpler thrombolysis decisions in patients with left bundle branch block

I read the article by Reuben and Mann¹ with considerable interest. This is a useful way of presenting the Sgarbossa criteria, which have high specificity for acute myocardial

infarction (AMI). Unfortunately, these criteria are far too insensitive to exclude MI, being present in only 20% of patients with left bundle branch block (LBBB) and confirmed AMI.^{2,3} It is therefore important that less experienced practitioners do not assume that thrombolysis should be withheld if these electrocardiographic (ECG) features are absent.

In fact the simplest thrombolysis decision is that all patients with a history strongly suggestive of AMI and LBBB should receive thrombolysis, unless significant contraindications exist. Even the well rehearsed medical myths relating to the age of the LBBB are of minimal relevance, as described in an elegant editorial cited by the authors.⁴ Patients with LBBB have the most to gain from thrombolysis,⁵ but they are still failing to receive this highly effective therapy in too many cases.

In summary, therefore, where Sgarbossa criteria are seen on the ECG, AMI is highly likely. However, even in the absence of these features patients with a convincing history of AMI and LBBB should still receive thrombolysis, unless there are compelling reasons not to.

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References

- 1 Reuben AD, Mann CJ. Simplifying thrombolysis decisions in patients with left bundle branch block. *Emerg Med J* 2005;22:617-20.
- 2 Kontos MC, McQueen RH, Jesse RL, *et al*. Can myocardial infarction be rapidly identified in emergency department patients who have left bundle branch block? *Ann Emerg Med* 2001;37:431-8.
- 3 Li SF, Walden PL, Marcilla O, *et al*. Electrocardiographic diagnosis of myocardial infarction in patients with left bundle branch block. *Ann Emerg Med* 2000;36:561-5.
- 4 Gallagher EJ. Which patients with suspected myocardial ischemia and left bundle branch block should receive thrombolytic agents? *Ann Emerg Med* 2001;37:439-44.
- 5 Newby KH, Pisano E, Krikoff MW, *et al*. Incidence and clinical relevance of the occurrence of bundle-branch block in patients treated with thrombolytic therapy. *Circulation* 1999;99:2424-8.

Response to Mucci *et al*'s study: "Cranial computed tomography in trauma: the accuracy of interpretation by staff in the emergency department"

We read with interest Mucci *et al*'s¹ study of the accuracy of interpretation of cranial computed tomography (CT) scans in trauma by emergency department (ED) staff. It is a topical subject that needs exploring, but we have questions about the design of their study.

Firstly, the study was underpowered with only 100 scans examined. The quoted sensitivity of 86.6% has too low a 95% confidence interval (83.4% to 89.9%) to propose trusting the reliability of interpretation of the CT scans by the ED staff. If these figures were translated into one scan been examined by only one reader (which is more comparable with real life practice) the corrected 95% confidence interval would be 68.7% to 94.0%. Is an error rate of more than 15% really acceptable?

Secondly, we are concerned that multiple readers interpreted the same cases. The authors allude to Robinson *et al*'s² findings about interobserver variation, but the latter only studied the variability between radiologists interpreting plain radiographs. Can Robinson's findings be extrapolated to interobserver variation of ED staff interpreting CT scans?

Thirdly, we are intrigued by the high proportion of "abnormal" scans. Does the fact that skull radiographs are routinely done at their hospital suggest that only those patients who are more injured are scanned, thus increasing the chance of having serious pathology which is easier to identify on CT? If they scanned more patients would increasingly subtle abnormalities have been harder to detect?

Finally, we chuckled at the lack of conflicting interests. Would it be churlish to suggest radiologists would welcome any study that would reduce their out of hours workload?

Overall, we welcome Mucci *et al*'s paper but suggest that they have placed too much significance on an underpowered study with considerable interobserver variability. Further, larger studies are required (and are being performed) to answer this question more thoroughly.

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References

- 1 Mucci B, Brett C, Huntley LS, *et al*. Cranial computed tomography in trauma: the accuracy of interpretation by staff in the emergency department. *Emerg Med J* 2005;22:538-40.
- 2 Robinson PJ, Wilson D, Coral A, *et al*. Variation between experienced observers in the interpretation of accident and emergency radiographs. *Br J Radiol* 1999;72:323-30.

Emergency care practitioners should not be compared with paramedics

I enjoyed the article by Cooper *et al*¹ and was delighted to see some evidence being published outlining the role of the emergency care practitioner (ECP). However, I have

some concerns about the study. I was puzzled why the authors chose to compare the ECPs with paramedics. The roles are entirely different—ECPs are equipped with additional skills enabling them to undertake an in-depth evaluation of a patient and treat them accordingly, leaving them at home where appropriate and without referral to another clinician. I am not aware that paramedics are trained to this level, and therefore I cannot understand how a comparison can be made.

Cooper *et al* also commented on the differences in the chief complaints that the ECPs attended, but surely this is the whole point of ECPs? They are specially trained to deal with minor illness and injury and therefore the response should be directed at these patients in order to ensure maximum benefit from the role. This paper would have been more relevant and interesting if the authors had compared the whole patient episode, rather than part of it. This may have allowed some conclusions to be drawn about the potential benefit an ECP might have for the patient in terms of time saved and appropriate clinical decisions made to avoid the emergency department.

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Reference

- 1 Cooper S, Barrett B, Black S, *et al*. The emerging role of the emergency care practitioner. *Emerg Med J* 2004;21:614–18.

There is a lack of other professionals for emergency care practitioners to be compared with

I too enjoyed the paper by Cooper *et al*,¹ and I was gratified to see that Suzanne Mason had read the paper and responded. My thoughts on the suitability of the comparison between the paramedic and emergency care practitioner (ECP), however, differ from Dr Mason's. While I accept the comments in her letter with particular reference to the training and education of paramedics and thus their ability to carry out a similar role, I have to ask the question: With whom should we be compared for the purposes of this type of paper?

The role of the ECP is relatively new and, in real terms, a role that occupies a unique position in the National Health Service that comparison with any individual group may well be inappropriate. However, the starting point of paramedics is a valid one, not least in terms of the patients seen in the study.

With the forthcoming completion of the School of Health and Related Research (SchHARR) national study on ECPs, I look forward to seeing some further research and evidence on a broader basis. This will help with the future development of the ECP role across the UK.

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Reference

- 1 Cooper S, Barrett B, Black S, *et al*. The emerging role of the emergency care practitioner. *Emerg Med J* 2004;21:614–18.

Author's reply: comparison of emerging roles

As the lead author of this paper I was glad to read Mason and Bilby's letters, which clearly add to the debate of how we should evaluate new and emerging roles. To clarify our approach, it must be understood that we were collecting data for this study in 2002, examining the role of four of the first emergency care practitioners (ECPs) in UK. We were asking the question: If you change individuals roles (through training and the system of call out) what difference does it make to their practice?

We took a multi-method approach—that is, we used interpretist approaches (interviews and reflective diaries) and a positivist stance in our comparison of ECP and paramedic roles. This was intended as a comparison—the paramedics were not considered as a “control” in any way. We chose to compare roles, as at the time of the study (2002) the “crew room chat” was all about this new role, with some holding the view that an ECP does little more than a good paramedic. In addition, as we mention in the discussion section of our paper, we may also have found that there was no difference—for example, in conveyance rates (paramedics v ECPs), which would have raised questions about the investment in the role.

The scene now has changed and ECPs do appear to be developing a distinct and unique role, so a comparison with paramedics would indeed now be less relevant. In fact, in some current work we are focusing on the role of ECPs in interprofessional collaboration. In our provisional findings the role appears to be diverse, with many potential benefits for the patient.

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Air ambulances—critical care at the roadside?

We recently had the privilege of attending a national Helicopter Emergency Medical Service forum hosted by chief executives of various ambulance service NHS trusts in Harrogate. We listened with interest as several guest speakers extolled the virtues of their “entirely free” resource in helping to improve ORCON standards. This had been achieved through the “freeing-up” of road ambulances by performing non-time-critical transfers via helicopters and by expediting the transfer of seriously injured patients to local hospitals from incident scenes.

During discussion with speakers and other members of the audience we felt somewhat concerned that the general consensus of this group appeared to be that once a paramedic aircrew had rendered treatment and lifted off to transport the casualty to a neighbouring hospital, the patient had received “optimal care”. Various cases were presented as examples of current practice, including a patient with a serious head injury following a fall from cliffs, a patient with polytrauma and limb amputation following collision with a train, and severely injured patients involved in prolonged entrapments. On questioning by a participant in the audience, members of the forum were unable to identify any specific clinical interventions undertaken at the scene that are known to improve patient outcome in the examples that were presented as model cases. It is widely recognised by clinicians involved in the delivery of prehospital, emergency and intensive care medicine that appropriate, early management of seriously injured patients reduces overall patient mortality and morbidity, with a significant reduction in long term potential costs to the NHS.

We are now all aware of emergent conceptual changes to the way prehospital care is being delivered at the roadside in the UK. Competency based training for prehospital care practitioners is now becoming mandatory to ensure consistent delivery of high standard critical care to seriously injured patients at the incident scene. In this rapidly evolving environment it was disappointing to hear very senior ambulance service staff still unwilling to discuss the importance of both the type and the quality of clinical care actually being delivered to some of the patient groups outlined during the forum.

There now appears to be an obvious divide between air ambulances that continue to be used primarily as an expensive transport medium and those that are striving to improve the level of clinical care afforded to patients before their arrival to hospital. The public, who fund the majority of air ambulances, are currently unaware of the dichotomy that exists in pre-hospital care between geographical regions. However, at an approximate cost of £70 000 per month, an air ambulance is far from a “free resource” and should not be considered as such. Furthermore, the concept of the appropriate manning and tasking of these valuable assets being utilised to clinically benefit patients (such as the paramedic/physician partnership initiative) must surely be explored through the employment of clinical governance and regular audit.

Finally, we are concerned that in regions where advanced levels of competency based prehospital medical care are offered to the public through organisations such as BASICS and primary Helicopter Emergency Medical Services, that by denying patients available resources that could be deemed in court to reduce a patient's suffering, improve their outcome, or prevent their death, ambulance services may be liable to a charge of either negligence or, even worse, corporate manslaughter in future years.

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