

We select the letters for these pages from the rapid responses posted on [bmj.com](http://bmj.com) favouring those received within five days of publication of the article to which they refer. Letters are thus an early selection of rapid responses on a particular topic. Readers should consult the website for the full list of responses and any authors' replies, which usually arrive after our selection.

# LETTERS

## BLOODSTREAM INFECTION

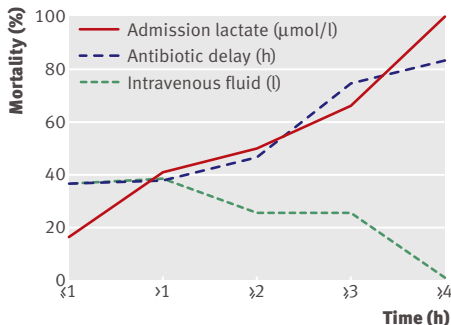
### Early treatment in sepsis

Minton et al add to evidence that poor clinical practice in the initial management of patients with bloodstream infections contributes to increased morbidity and mortality.<sup>1</sup>

We recently performed a retrospective study of 35 patients with community acquired pneumonia and septicaemia transferred within 48 hours of admission to a district general intensive care unit over a year. Outcomes were death or discharge from hospital.

Mean age was 59 (range 14-96), 19 were male, and 24 were smokers. Patients over 65 had a 53% mortality compared with 22% in those under 65. Smokers had a 46% mortality compared with 18% in non-smokers.

CURB 65 scores (Confusion, elevated Urea, elevated Respiratory rate, low Blood pressure and age at least 65) were grouped 0/1, 2/3, and 4/5. Mortality was 30% in the 0/1 and 2/3 groups. Patients scoring 4/5 on admission, however, had 80% mortality.



Mortality in patients with pneumonia and sepsis by lactate concentration at admission, antibiotic delay, and fluid resuscitation in first four hours

The findings (figure) suggest that timely administration of antibiotics and intravenous fluids is important. Encouraging junior doctors to give patients with suspected sepsis the first dose of antibiotics may help achieve this. We recommended that in acute assessment areas all the equipment and guidelines for sepsis treatment should be contained in a sepsis box.

Patients with admission CURB 65 scores of 4/5 had much higher mortality rates than those with lower scores, and the correlation between admission lactate and mortality suggests that it may be an important assessment factor.

Mohammed A Butt ST2 general medicine  
[adilbutt@doctors.org.uk](mailto:adilbutt@doctors.org.uk)

A K Coulson F2 medicine

J H Hull specialist registrar respiratory medicine

T B L Ho consultant respiratory physician, Knight Centre for Cystic Fibrosis, Department of Respiratory Medicine, Frimley Park Hospital, Camberley GU16 7UJ

Competing interests: None declared.

- 1 Minton J, Clayton J, Sandoe J, McGann H, Wilcox M. Improving early management of bloodstream infection: a quality improvement project. *BMJ* 2008;336:440-3. (23 February.)

### Bacteraemia: infection care

In June 2005 we implemented a similar service to Minton et al's,<sup>1</sup> which provides unsolicited bedside reviews and a typewritten report for all patients with bacteraemia. We reviewed 151 adults from June 2005 to November 2006.

The most common isolate was *Staphylococcus aureus* (45%), of which 40% were methicillin resistant; the most common source was central venous lines (27% of patients). For hospital acquired bacteraemia, therefore, the report is now sent to the trust's medical director and forms part of the root cause analysis.

Our pre-consultation level of appropriateness of antibiotic prescriptions was high (87%)—perhaps because of an accessible and well recognised trust-wide antibiotic guideline—but 62% of cases still needed optimisation at review. After consultation, prescriptions for broad spectrum agents decreased from 41 to 24, whereas those for intermediate spectrum (58 to 68) and narrow spectrum antibiotics (81 to 87) increased. Further investigations were suggested in 60% of patients. We identified 13 patients with clinically significant monobactam resistance caused by coagulase negative staphylococci, often assumed to be contaminants. Mortality at 30 days was 19%, with nine patients (7%) having confirmed recrudescence by 90 days. Provision of the service required 60 hours of doctors' time.

Phone or end of the bed advice is suboptimal in bacteraemia. The history must be retaken, the patient carefully examined, and investigations and drug charts reviewed. Who provides this service is not important, as long as they have the necessary clinical skills. Given junior doctors' poor knowledge about sepsis,<sup>2</sup> on the job teaching is beneficial. As Godlee intimates,<sup>3</sup> uncontrolled before and after studies are unlikely to convince policy makers or hospital managers to invest in the bacteraemia service model of care. But such models represent the future of infection practice in the UK—a move away from the traditional, but under used,

solicited consultation approach to roving teams of infection experts providing unsolicited consultations for all patients with infection.

Gavin D Barlow consultant in infectious diseases/medicine, Hull and East Yorkshire Hospitals NHS Trust, Castle Hill Hospital, Cottingham, East Yorkshire HU16 5JQ  
[gavin.barlow@hey.nhs.uk](mailto:gavin.barlow@hey.nhs.uk)

Patrick Lillie specialist registrar in infectious diseases/medicine, Royal Hallamshire Hospital, Sheffield S10 2FJ

Competing interests: None declared.

- 1 Minton J, Clayton J, Sandoe J, McGann H, Wilcox M. Improving early management of bloodstream infection: a quality improvement project. *BMJ* 2008;336:440-3. (23 February.)
- 2 Ziglam HM, Morales D, Webb K, Nathwani D. Knowledge about sepsis among training-grade doctors. *J Antimicrob Chemother* 2006;57:963-5.
- 3 Godlee F. Prognosis and politics. Editor's choice. *BMJ* 2008;336. (23 February.)

## UNRESPONSIVE ASTHMA

### Don't forget mediastinal masses

O'Carroll et al highlight some of the important issues in childhood asthma unresponsive to simple treatment in primary care.<sup>1</sup> However, they omit malignancy from their differential diagnoses, missing an essential learning point—that chest radiography is advised in children failing to respond to simple standard asthma treatment and certainly before starting oral steroids. Chest radiography should also be performed if the diagnosis is uncertain or if asthma symptoms change.<sup>2</sup>

Rarely, childhood leukaemia or lymphoma presents with symptoms of asthma—progressive airway obstruction secondary to external lymph node compression causes wheeze and shortness of breath. At worst, this proceeds to critical airway compression and respiratory arrest.<sup>2</sup> Standard asthma treatment (steps 1 or 2 of the British Thoracic Society's asthma guidelines)<sup>3</sup> may provide a partial clinical response, but deterioration will ensue. At this point, chest radiography, if performed, will show a mediastinal mass.

The National Institute for Health and Clinical Excellence guidelines for referral for suspected cancer clearly state that "shortness of breath is a symptom that can indicate chest involvement but may be confused with conditions such as asthma."<sup>4</sup> Clinicians should always be aware that malignancy can present with respiratory symptoms.

Giving oral steroids to a child with undiagnosed leukaemia or lymphoma is risky. Tumour lysis syndrome may be precipitated and

these patients may present to hospital in renal failure. Moreover, such pretreatment may make subtype diagnosis and disease staging difficult to perform, further compromising the ability to provide these patients with the best treatment. Most worryingly, pretreatment with oral steroids in childhood malignancy is associated with adverse outcome.<sup>5</sup>

**Matthew J Murray** consultant paediatric haemato-oncologist  
mjm16@cam.ac.uk

**James C Nicholson** consultant paediatric oncologist  
**Donna McShane** consultant respiratory paediatrician,  
Department of Paediatrics, Addenbrooke's Hospital,  
Cambridge CB2 0QQ

**Competing interests:** None declared.

- 1 O'Carroll N, Fitzsimons J, Carr S. Asthma unresponsive to simple treatment in a child. *BMJ* 2008;336:447. (23 February.)
- 2 Peet A, Grundy R, Morland B, Stevens M. Differential diagnoses for asthma should include mediastinal masses. *BMJ* 2001;322:302.
- 3 British Thoracic Society, Scottish Intercollegiate Guidelines Network. *British guideline on the management of asthma: a national clinical guideline*. 2007. www.brit-thoracic.org.uk/Portals/0/Clinical%20Information/Asthma/Guidelines/asthma\_fullguideline2007.pdf.
- 4 National Institute for Health and Clinical Excellence. *Referral guidelines for suspected cancer in adults and children*. 2005. www.nice.org.uk/guidance/index.jsp?acton=byID&true&o=10968#documents.
- 5 Revesz T, Kardos G, Kajtar P, Schuler D. The adverse effect of prolonged prednisolone pretreatment in children with acute lymphoblastic leukemia. *Cancer* 1985;55:1637-40.

## TRAUMATIC BRAIN INJURY

### Consider time of presentation

The MRC CRASH trial collaborators' simple prognostic model can be used to predict outcomes in patients with traumatic brain injury.<sup>1</sup> Although the model considered time from injury to randomisation, the time at which the patient presented to hospital was not considered as a potential independent prognostic variable. This is important because provision of key aspects of hospital trauma services such as staffing, access to operating theatres, and interventional radiology is reduced after normal working hours.

In the UK, a recent study examined the process of care for 795 severely injured patients—493 with a head injury.<sup>2</sup> Most presented to the accident and emergency department out of hours (18.00-07.59 hours or weekends). Initial management of the patient was inappropriate in 23.5% of cases when a senior house officer was the team leader or first reviewer compared with 3.1% when a consultant performed this role. Consultants were involved in 39.6% of cases during the day and only 11.5% of cases presenting at night. This trend was in the opposite direction for junior doctors, being highest during the night. In addition to a lack of senior medical staff to coordinate management out of hours, immediate intervention for more specialised injuries was often unavailable.

Organisational deficiencies in out of hours care are not unique to the UK or to trauma care.

Increased mortality out of hours has also been identified in patients with myocardial infarcts undergoing percutaneous coronary intervention,<sup>3</sup> patients with cardiac arrest,<sup>4</sup> and patients being discharged from intensive care.<sup>5</sup>

**Paul Frost** consultant in intensive care medicine

**Paul.Frost@CardiffandVale.wales.nhs.uk**

**Matt P Wise** consultant in intensive care medicine, Critical Care Directorate, University Hospital of Wales, Cardiff CF14 4XW

**Competing interests:** None declared.

- 1 MRC CRASH Trial Collaborators. Predicting outcome after traumatic brain injury: practical prognostic models based on large cohort of international patients. *BMJ* 2008;336:425-9. (23 February.)
- 2 Findlay G, Martin IC, Carter S, Smith N, Weyman D, Mason M. *Trauma who cares? A report of the National Confidential Enquiry into Patient Outcome and Death*. 2007. www.ncepod.org.uk/2007report2/Downloads/SIP\_report.pdf.
- 3 Kostis WJ, Demissie K, Marcella SW, Shao YH, Wilson AC, Moreyra AE; for the Myocardial Infarction Data Acquisition System (MIDAS 10) Study Group. Weekend versus weekday admission and mortality from myocardial infarction. *N Engl J Med* 2007;356:1099-109.
- 4 Peberdy MA, Ornato JP, Larkin GL, Braithwaite RS, Kashner MT, Carey SM, et al; for the National Registry of Cardiopulmonary Resuscitation Investigators. Survival from in-hospital cardiac arrest during nights and weekends. *JAMA* 2008;299:785-92.
- 5 Goldfrad C, Rowan K. Consequences of discharges from intensive care at night. *Lancet* 2000;355:1138-42.

## DEPRESSION IN ADULTS

### GPs are not so bad at diagnosis

Timonen and Liukkonen state that, according to cross sectional studies, 50-70% of patients with depression in primary care remain undetected.<sup>1</sup>

Studies have shown that many missed cases have relatively mild symptoms, that lie just above the threshold on screening measures for depression. These cases have dubious clinical relevance and may be false positives because all diagnostic measures have rating errors.<sup>2</sup> In addition, cross sectional recognition rates are obtained from a single 10 minute consultation and usually exclude patients whom GPs have already recognised as depressed.

The article fails to acknowledge studies showing that many "missed" patients are diagnosed correctly at later visits. Although many patients with depression did not receive a diagnosis at a single consultation, most were given one at later consultations or recovered without a GP's diagnosis.<sup>3</sup> After three years, only 14% of depressed patients still had a clinically significant condition, had not received diagnosis, and might have benefited from treatment.<sup>3</sup>

**Tony Kendrick** professor of primary medical care, University of Southampton, Southampton SO16 5ST  
a.r.kendrick@soton.ac.uk

**Competing interests:** None declared.

- 1 Timonen M, Liukkonen T. Management of depression in adults. *BMJ* 2008;336:435-9. (23 February.)
- 2 Thompson C, Ostler K, Peveler RC, Baker N, Kinmonth A-L. Dimensional perspective on the recognition of depressive symptoms in primary care. *Br J Psychiatry* 2001;179:317-23.
- 3 Kessler D, Breenwith O, Lewis G, Sharp D. Detection of depression and anxiety in primary care: follow up study. *BMJ* 2002;325:1016-7.

## DOCTORS' EDUCATION

### Conflicts are everywhere

Yet another tedious *BMJ* article on the "evils" of the drug industry.<sup>1</sup> Perhaps the *BMJ* should start to focus on wider aspects of conflict of interest, such as pharmaceutical advisers peddling the verdicts of the National Institute for Health and Clinical Excellence—which itself bows to a government remit to contain cost—or to academic departments only publishing positive data to bolster research assessment exercise ratings and secure future grants. Conflicts of interest abound in modern medicine, and laying all the problems at the door of the drug industry seems to be missing the point—or perhaps the *BMJ* goes out of its way to "industry bash" to make itself feel less guilty about accepting industry advertising money.

Highly qualified medical professionals should not see themselves as hapless victims of a marketing machine, they should simply get smart in how to manage the interface with commercial partners. It is a scandal that formal postgraduate education has no decent training on how doctors should relate to commercial organisations.

**Hari Singh** general practitioner, Clare Road Surgery, Cardiff CF5  
harisingh41@hotmail.com

**Competing interests:** None declared.

- 1 Moynihan R. Doctors' education: the invisible influence of drug company sponsorship. *BMJ* 2008;336:416-7. (23 February.)

### Sponsored medical tourism

When organising an international medical conference in Sydney, we righteously spurned sponsorship from "big pharma."<sup>1</sup> Caesar's wife had nothing on us. We solicited support elsewhere and ran a successful conference.

But, when the final figures were reckoned, we made a sobering discovery. Our success was due in large measure to big pharma and "big surgical instrument maker." They had paid the registration fees of two large Asian contingents.

Our enthusiasm at seeing those delegates at the registration desk on day 1 was totally negated when, having taken photographs in front of the conference banners, they vanished—to tour the city and, for all we know, the neighbouring countryside or the rest of Australia.

How common is this behaviour? What do these companies expect, and receive, in exchange? Is this sponsored tourism acceptable in their home countries? Are the same sorts of offerings made to Australian doctors regarding trips overseas?

**Peter C Arnold** retired general practitioner, Edgecliff, NSW 2027, Australia  
parnold@ozemail.com.au

**Competing interests:** None declared.

- 1 Moynihan R. Doctors' education: the invisible influence of drug company sponsorship. *BMJ* 2008;336:416-7. (23 February.)