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LETTERS

GPs IN ACCIDENT AND EMERGENCY

Forget quantity, think quality



GUSTOMAGES/SPFL

As a hospital practitioner who has worked one session a week in accident and emergency for the past 14 years, I remain unconvinced that general practitioners working in accident and emergency can reduce the number of emergency hospital admissions.¹ However, what they can do is improve the quality of the admissions process.

They can discharge patients who should never have come to accident and emergency in the first place, such as confused elderly people with full care packages already in place and no new symptoms, terminally ill people whose relatives have panicked, and people with chronic pain whose drug treatment needs only tweaking.

They can admit patients whom junior doctors would send home because they lack the experience to differentiate between vertigo and ataxia, or because they don't know the red flags for back pain.

They can signpost the pathway of an admission at an early stage—for example, “Mrs X is dehydrated with a urinary tract infection, but her daughter will have her back home as soon as she is rehydrated and the antibiotics are in place.”

The hospital trust where I work has an excellent district nurse liaison service, but many of the junior doctors do not have the confidence or experience to use it. General practitioners have both confidence and experience, but please use them to improve quality rather than quantity. Trying to reduce the number of admissions with the demographic changes affecting the NHS will surely fail. Improving the quality of the admissions process holds out more hope for containing costs.

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Competing interests: None declared.

1 O'Dowd A. GPs in A&E could help tackle rise in emergency hospital admissions. *BMJ* 2010;341:c3618. (6 July.)

Cite this as: *BMJ* 2010;341:c4023

Gatekeeper version 2

The Nuffield Trust report lists many reasons for the rise in emergency admissions,^{1,2} but two are pre-eminent: the changes in care outside hospital and the practice of defensive medicine. Most patients would still benefit from attention by a regular general practitioner, perhaps at a central location which could logically be at the main hospital. Exactly how and where the general practitioner worked would have to be carefully defined but, if properly organised, it could lead to valuable and immediate consultation with secondary care specialists without admission.

Two key features must apply: an assessment/admissions unit fully functioning over 24 hours alongside the accident and emergency department, and the presence of specialist doctors in both.

Is a short stay in hospital a good or a bad thing? Spending several useful hours in an assessment/admissions unit is all that many patients need not only for their reassurance but also for that of the attending specialist(s). Without the presence of a specialist (currently only available in the UK at a single grade, consultant) many patients are formally admitted “just in case” by comparatively unsupported junior/trainee staff and then go through the investigative mill.

What we need is gatekeeper version 2—the supported specialist(s) with the knowledge and experience to avoid unnecessary admissions and themselves supporting the adjoining general practitioner unit. Perhaps, as the proposed new commissioners, general practitioners can take on board the most important of the report's conclusions and ensure both that primary care re-engages with emergency care and that admissions are properly controlled by trained specialists.

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- 1 O'Dowd A. GPs in A&E could help tackle rise in emergency hospital admissions. *BMJ* 2010;341:c3618. (6 July.)
- 2 Blunt I, Bardsley M, Dixon J. *Trends in emergency admissions in England 2004-2009: is greater efficiency breeding inefficiency?* Nuffield Trust, 2010.

Cite this as: *BMJ* 2010;341:c4030

NICE guidelines may not help

The Nuffield Trust suggests that the adequacy of clinical decisions to admit patients may be a factor in the rise in emergency admissions and recommends review of how decisions are made.^{1,2} However, it does not consider the influence of guidelines on decision making, particularly those from the National Institute for Health and Clinical Excellence (NICE).

Recent NICE guidance on acute chest pain recommends measurement of troponin 10 to 12 hours after symptom onset.³ Most patients present 2 to 3 hours after symptom onset, and whether to admit or discharge has to be decided by 4 hours after arrival at the emergency department. Thus NICE guidance effectively means that most patients with chest pain due to a suspected acute coronary syndrome should be admitted to hospital. It is not clear what benefit patients get from admission or whether it is worth the cost.

NICE guidance on head injury aimed to increase the use of computed tomography to detect intracranial injury and potentially reduce the need for admission.⁴ Hospital episodes statistics data show that the introduction of NICE guidance coincided with an increase, rather than a decrease, in admission for head injury.⁵ The recommendation that patients with normal results can be discharged is couched in defensive terms and qualified by potentially unnecessary caveats.

If we want clinicians in emergency departments to admit fewer patients we may need to provide guidance that supports, and perhaps even promotes, discharge home.

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- 1 O'Dowd A. GPs in A&E could help tackle rise in emergency hospital admissions. *BMJ* 2010;341:c3618. (6 July.)
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Cite this as: *BMJ* 2010;341:c4026

EMERGENCY READMISSIONS

Non-clinical bed management strategies in psychiatry

Financial pressures leading to early discharge affect not only general hospitals.¹ To reduce costly admissions to the private sector, psychiatric intensive care units (PICUs) have implemented bed management strategies that identify patients who pose the least risk (relative to the other patients) of deterioration in mental state, assault, absconding, and self harm. They are then transferred to a general ward even if not clinically ready to create bed space for urgent PICU admissions.

We evaluated the service provision of a London PICU to determine the cost effectiveness of this strategy. We included all 86 admissions in 2009. Twenty six patients were transferred to general wards under the strategy after an average 30 days in PICU. The other 60 were transferred to general wards when PICU was no longer clinically necessary after an average 34 days in PICU.

Ten of the 26 (38%) patients and nine of the 60 (15%) were readmitted to the PICU (odds ratio 3.5 (95% confidence interval 1.2 to 10.2)). The average duration of readmission for patients who had been subjected to the bed management strategy was 15 days compared with 4 days for those who had been clinically referred out ($P=0.01$). The average total duration in PICU for the 26 patients was 45 days compared with 38 days for the 60 others.

Thus we found that although the bed management strategy saved four nights in an independent PICU, this was at a hidden cost of seven nights for readmission. This equated to a net increased cost of three nights in an NHS PICU per patient for the bed management strategy. A PICU bed costs around £500 a day. The cost of each patient bed managed out is £1500 more than for a patient clinically referred out. Early discharge isn't cost effective.

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Competing interests: None declared.

- 1 Kmiotowicz Z. Hospitals will be fined for emergency readmissions, says Lansley. *BMJ* 2010;340:c3079. (9 June.)

Cite this as: *BMJ* 2010;341:c3889

BUDGET CRISES AND HEALTH

Let's hear it for housing



STEPHEN FINN/ALAMY

Stuckler and colleagues make a powerful case for the overall cost effectiveness of welfare spending, and figure 1 puts our debt into perspective.¹ The silo mentalities mentioned penetrate to the highest level of government, where they are most damaging.

Housing is perhaps the most costly area in which to economise. When, as at present, decent, affordable housing, especially low rent housing, is grossly deficient the effects on health outcomes can be severe and costly.

At a workshop I ran in Hackney in 1998 with a group drawn from local health, housing, education, social services, policing, and emergency services, I asked: "If you had an additional £1m on your budget next year but it has to be spent on another service, not your own, which would it be?" The clear consensus was housing.

After the 1995-2001 regeneration of some very bad housing in Stepney, east London, self reported ill health improved fivefold, with commensurate reduction in use of NHS services.²

Housing is an upstream "lead" variable affecting wellbeing generally and especially children's capacity to reach their full potential at school. In Wandsworth, south London, over 60% of parents (and some teachers) judged heavy home overcrowding to be harming their children's educational and behavioural development.³

The UK Public Health Association is currently developing a framework on how housing supply and conditions affect health outcomes.

But there is nothing new under the sun. In 1921 the then health minister, Dr Christopher Addison, asked the registrar general to estimate the annual cost of dealing with diseases related to housing, particularly tuberculosis. It was £42m annually (about £1.5 billion in today's money). Addison's book should be required reading for all public health specialists—and government ministers.⁴

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Competing interests: None declared.

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Cite this as: *BMJ* 2010;341:c4018

Reporting of the UK debt

In table 1 of their analysis on health and social welfare programmes, Stuckler and colleagues emphasise that total UK debt is comparatively low if expressed as a percentage of UK gross domestic product (GDP) (68.2%).¹

However, their figures exclude the UK's unfunded public pensions, which are also public debt. Estimates of the cost of these, also expressed as a percentage of UK GDP, vary from 53.3% (the Treasury) to 69.8% (CBI (Confederation of British Industry)) and 83% (Towers Watson, actuaries). A rough estimate is therefore that these liabilities double the UK debt as usually reported.

Of course governments in other countries also underacknowledge some liabilities in their debt reports, so the message is to be cautious about all such figures.

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- 1 Stuckler D, Basu S, McKee M. Budget crises, health, and social welfare programmes. *BMJ* 2010;340:c3311. (24 June.)

Cite this as: *BMJ* 2010;341:c4020

ANTIBIOTIC PROPHYLAXIS

MRSA and *Clostridium difficile* are falling

In their editorial on the use of co-trimoxazole as prophylaxis after percutaneous endoscopic gastrostomy, Kurien and Sanders state that the incidence of meticillin resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* is increasing.¹ In England this is no longer true. The quarterly number of MRSA bacteraemias fell by 75% from 2003-4 (quarterly average for that year) to the quarter January-March 2010, and the quarterly number of *C difficile* infections by 54% from 2007-8 (quarterly average) to the quarter January-March 2010.²

Prevention of infection associated with health care is important, and more can be done. The use of co-trimoxazole would be beneficial as the risk of *C difficile* infection is lower with

it than with cephalosporins, as shown in the accompanying paper by Blomberg and colleagues.³ Much work has already been done in the UK to improve antibiotic use, and the fall in number of MRSA and *C difficile* infections is probably in part related to this. This should have been highlighted in the editorial rather than the incorrect generalisation about MRSA and *C difficile* incidence.

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Competing interests: None declared.

- 1 Kurien M, Sanders DS. Antibiotic prophylaxis after percutaneous endoscopic gastrostomy. *BMJ* 2010;341:c2898. (2 July.)
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Cite this as: *BMJ* 2010;341:c4016

SAFETY OF PLANNED HOME BIRTHS

Findings of meta-analysis cannot be relied on

Mayor reports that a meta-analysis has linked planned home births with a twofold higher rate of neonatal mortality compared with hospital births.^{1,2} Closer inspection calls this finding into question.

The quality of studies in any meta-analysis is critical, but no assessment was reported. Studies were observational with many not matched adequately for confounders.

Neonatal mortality came mainly from small studies, with most weight from one larger retrospective study on birth registry data for Washington State.³ Unplanned home births are more likely to have poor outcomes, and some may have been misclassified as planned home births because birth certificates did not distinguish between them.

Differences arising from comparatively small numbers should be interpreted with caution. Differences in neonatal mortality were based on 32 deaths in 16 500 planned home births and 32 in 33 302 hospital births.² This lacks the power recommended by the GRADE quality assessment tool (being phased in by the National Institute for Health and Clinical Excellence),⁴ which suggests that 200-400 events are needed. In contrast, perinatal mortality was based on 229 deaths among 331 666 planned home births and 140 among 175 443 hospital births, with no significant difference.²

Unfortunately the meta-analysis and the *BMJ* focused on the neonatal mortality findings. Outcomes given less prominence were no

significant differences in perinatal mortality and neonatal deaths with planned home births attended by certified midwives. Mothers planning a home birth were less likely to have a preterm or low birthweight baby. All the outcomes should be viewed within the overall poor quality of the meta-analysis. Professional journals should be reporting findings in a balanced way, highlighting methodological limitations.

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Competing interests: None declared.

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Cite this as: *BMJ* 2010;341:c4033

TRANSDERMAL TESTOSTERONE GEL

Don't take blood from the arm where gel is applied

Mason and colleagues report that sexual precocity occurred in a 4 year old boy with inadvertent transfer of transdermal testosterone gel.¹ We report contamination of blood samples during venepuncture.

A patient receiving testosterone replacement treatment had a serum testosterone concentration of 50 nmol/l (reference range 10.0-30.0). He suspected that this high value may have been because the blood sample had been taken from the antecubital fossa of the arm where gel had recently been applied. Repeat blood samples taken from both arms simultaneously with the same dose of gel showed a testosterone concentration of 52.1 nmol/l on the same side of application and 16.7 nmol/l from the opposite side.

The recommended site of application of testosterone gel is the upper arm. As this is close to the antecubital fossa, the gel may be rubbed into a potential venepuncture site allowing some testosterone from the skin to contaminate a

blood sample. Clinicians prescribing testosterone gel should be aware of the possibility of contamination of blood samples by topically applied testosterone as well as the risk of inadvertent transfer of testosterone to others.

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Competing interests: None declared.

Patient consent obtained.

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Cite this as: *BMJ* 2010;341:c4014

COMPETING INTERESTS

NICE reply

The National Institute for Health and Clinical Excellence (NICE) has clear procedures on conflicts of interest.¹ These apply to our board and all our employees, as well as all committee members.²

We want our guideline development groups to comprise the leading experts in the relevant field. But we also recognise that many experts are likely to have advised, or received research funding from one or more pharmaceutical companies at some point in their careers. We allow committee members to participate fully in all discussions if they have not done work for an interested party in the past year. If their involvement with an interested party is current or happened during the past 12 months they are not allowed to participate in discussions on relevant interventions. All committee members are asked to declare any conflicts of interest at the start of each meeting, and these are also published on our website, including for the venous thromboembolism guideline.³

Any relevant actions taken at each meeting are recorded in the minutes. We are confident that our published guideline on venous thromboembolism has not been compromised by any conflict of interest.

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Competing interests: FM is employed by NICE.

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Cite this as: *BMJ* 2010;341:c4012

FEMALE GENITAL MUTILATION

US policy on genital cutting

The American Academy of Pediatrics never intended to encourage the practice of female genital cutting, and has withdrawn the May 2010 statement that caused confusion.¹

The academy opposes all forms of female genital mutilation. This position is clearly stated in the revised policy posted on our website.²

This discussion may have had the positive effect of calling the world's attention to this abhorrent practice and may lead to more proactive efforts to eliminate it.

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Competing interests: JSP is president of the American Academy of Pediatrics.

- 1 Bewley S, Creighton S, Momoh C. Female genital mutilation. *BMJ* 2010;340:c2728. (2 June.)
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Cite this as: *BMJ* 2010;341:c4013

RESPONSE

“Antivaccine Lobby” replies to the *BMJ*

We are a group of paediatricians, healthcare activists, teachers in public health, and bureaucrats who have championed universal immunisation in India throughout our working lives, so we were taken aback at being called an “antivaccine lobby” in the *BMJ*.¹

Studies funded by the World Health Organization show that the incidence of *Haemophilus influenzae* type b (Hib) in India is lower than projected.² Furthermore, probe studies from Asia show that Hib vaccine does not significantly reduce the burden of disease compared with placebo.³ We discuss the anecdotal evidence and the farcical equity argument used to recommend the pentavalent vaccine (diphtheria, pertussis, tetanus, Hib, hepatitis B) in India in our rapid response,⁴ and concentrate here on the safety issue.

Meta-analysis shows that the combined vaccine is not as effective as single vaccines administered separately; therefore it is not used widely in the West, where reporting of adverse events is reliable. Pentavalent vaccine was withdrawn in Sri Lanka in April 2008 after five deaths. A WHO panel investigated the events and classified three deaths (cases D1, D3, and D6) as “unlikely” to be related to vaccine. Pentavalent vaccine was reintroduced in Sri Lanka earlier this year. The death rate in Sri Lanka is reported to be unchanged, as if adverse events from immunisation will be acknowledged only when they affect the country's mortality statistics.

Pentavalent vaccine was withdrawn in Bhutan within two months of its introduction in July 2009 after eight deaths.

Adverse events after immunisation are investigated to establish whether the reaction in a given child is related to vaccination. Such investigation does not comment on the likelihood of reaction if the vaccine is given to other children in the future. The report from Sri Lanka was made available to the Delhi High Court on our petition. Only a summary was previously available on the internet.⁵ We have uploaded the full report,⁶ which quotes an aide-memoire on the standard WHO classification of adverse events after vaccination.⁷

The standard WHO classification is best understood as an algorithm. The first question is whether the adverse events have a plausible temporal relation to vaccine administration. All such reactions are classified as very likely/certain, probable, or possible. They are classified as unlikely or unrelated only if the timing makes a causal connection improbable or incompatible.

The next level of the algorithm enquires whether the adverse event can conclusively be attributable to other causes. If there are other possible explanations, the association with vaccine is classified as possible. If another cause is not found, an adverse event after immunisation is probable. If the same reaction occurs twice it is defined as a cluster.

In Sri Lanka the WHO panel deleted the categories probable and possible from the standard classification. All adverse events that could not be classified as very likely/certain were classified as unlikely. Using this new classification, three deaths were classified as unlikely to be related to vaccine, “although it could not be conclusively attributable to another cause.” As explained above, the three would have been classified as probable adverse events after immunisation using the standard WHO classification.

A WHO spokesperson defended the changed classification, saying that the independent experts were free to make up their own classification. He said that the three deaths would not be classed as probable or possible even if the old classification were used because “non-conclusive evidence” of other “potentially attributable” causes had been found. The causes enumerated were malnutrition (not uncommon in developing countries), necropsy findings of milk aspiration (often a terminal event in death from any cause), and necropsy findings suggestive of Reye's syndrome. We note the temporal relation of the deaths to vaccination was not disputed so the classification of unlikely cannot be justified. Interestingly, the report says the vaccine may have “unmasked” an underlying condition. Would malnutrition, milk in the trachea, or Reye's syndrome have remained

masked without the vaccine?

The WHO report presented to court is incomplete. The experts' names were left out. At least one of the experts has previously been accused of not declaring conflict of interest arising from funding by companies, including GlaxoSmithKline.

Classification of adverse events after immunisation as certain/very likely often needs evidence from de-challenge or re-challenge. This is not possible if the adverse event is death. The wider question (outside India and Asia) is whether this new classification should be allowed to replace the standard WHO classification of adverse events after immunisation. If it is, deaths that occur as reaction to vaccine will nearly always be classified as unlikely because re-challenge is not possible. Lives may thus be put at risk.

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Competing interests: None declared.

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Cite this as: *BMJ* 2010;341:c4001