LETTERS

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ACANTHAMOEBA KERATITIS

Increase in acanthamoeba keratitis may be associated with use of multipurpose contact lens solution

Acanthamoeba, a ubiquitous amoeba associated with stagnant water, can cause a sight threatening keratitis that is difficult to treat.[1] Contact lens users are at greater risk of developing atypical keratitis, particularly when lens hygiene is poor.[2]

We reviewed case notes to try to identify risk factors that could explain the increased incidence of acanthamoeba keratitis at this eye hospital (figure).

Since 2007, 19 cases of acanthamoeba keratitis have been treated at the hospital, 18 in contact lens users. Nine of the contact lens users used Sauflon All In One Light multipurpose contact lens solution, which is also marketed as Specsavers Easyvision Multipurpose Solution and Vision Express Multi Purpose M Lite (all nine used Easyvision). Other risk factors for acanthamoeba keratitis—for example, washing lenses in tap water and showering or swimming wearing lenses—were identified in 11 patients.

The potential association between use of a specific multipurpose solution is important, given that most contact lens wearers in the UK use daily disposable lenses, which do not require daily cleaning. Additionally, a multipurpose solution was withdrawn from the market following outbreaks of acanthamoeba keratitis in America and Singapore.[3 4] Various studies looking into this link show mixed outcomes, and little consensus exists on how acanthamoebal disinfection should be tested. One study showed that acanthamoeba cysts are resistant to disinfection by several multipurpose solutions.[5]

The preservative in the Sauflon multipurpose solution is polyhexamethylene biguanide (PHMB) at a concentration of 0.0001%—the same as in the withdrawn solution. However, other ingredients (such as buffering agents) may also affect anti-acanthamoebal activity.[6]

Standards for anti-acanthamoebal activity of contact lens solutions do not currently exist despite recent concerns. Further research is needed on the links between contact lens care products, quality of cleaning, and standardisation to prevent acanthamoeba keratitis.

Haneen Jasim F2 ophthalmology
hjasim@doctors.org.uk
Nat Knox-Cartwright fellow in ophthalmology
Stuart Cook consultant ophthalmology
Derek Tole consultant, Bristol Eye Hospital, Bristol BS1 2LX, UK

Competing interests: None declared.

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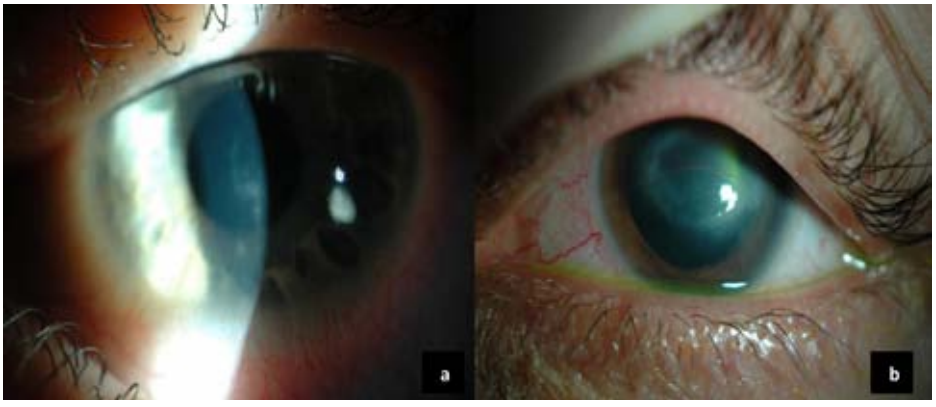

Acanthamoeba keratitis: (*a*) pathognomic perineural infiltrates (*b*) ring abscesses

NICE ON ORGAN DONATION

Wills and wishes in organ donation

Families have difficulty accepting organ donation.[1] Despite the patient's wishes being pre-eminent, the family's reluctance to agree carries an effective veto. Carers of dying patients and the transplantation service tread carefully, proceeding only with agreement and consensus, not in the face of opposition and resentment. An opt-out system, whereby organs are harvested unless the person has decreed otherwise, smacks of big brother—taxation of the dying.

Registration on the organ donor register cannot be upgraded to a "consent form." Consent requires adequate information; capacity; and time to understand, consider, weigh, reproduce, and communicate a decision—not just ticking a box on the ODR or driving licence application.

Families fail to appreciate the paradox of accepting the person's legal will (and any benefits) but not the person's wishes to donate. We could enshrine our wishes in our wills by informing our families that our will contains a wish to donate organs and tissues. Organ donor cards and the organ donor register could acknowledge that our wishes are in our wills, signed and witnessed. The organ donor register could store an electronic copy for verification (such storage agreed within the will itself). Penalty clauses could be included for failure to allow donation.

This process would downgrade the family veto—how could a family morally or legally deny the wish to donate written in the will but accept the benefits contained within that will? Such a system might allow all to accept the wishes, will, and altruism of our generous citizens and ingrain a practical incentive for families to comply.

Patrick L Tapley specialist trainee year 3, critical care
paddytap@hotmail.com
Peter J McQuillan consultant, critical care, Queen Alexandra Hospital, Portsmouth Hospitals NHS Trust, Portsmouth PO6 3LY, UK

Competing interests: None declared.

1 Chamberlain K, Baker MR, Kandaswamy P, Shaw EJ, McVeigh G, Siddiqui F; on behalf of the Guideline Development Group. Donor identification and consent for deceased organ donation: summary of NICE guidance. *BMJ* 2012;344:e341. (12 January.)

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THE GREENING OF MEDICINE

Start by picking low hanging fruit

An easy way to make progress in the greening of medicine would be for the NHS to reduce, even better stop, serving animal products.[1] Such leadership might inspire healthy behaviour in users.

The NHS is one of the largest purchasers of food in the UK. Evidence shows that, as far as the climate it concerned, meat is heat.[2] A reduction in livestock production would limit cattle related methane emissions and reduce the deforestation that contributes to global warming. An estimated four fifths of agricultural greenhouse gas emissions arise from the livestock sector,[3] and 22% of global greenhouse gas emissions are caused by livestock production.[4]

What's good for the climate is also good for health.[5] A reduction in animal products in the diet would reduce consumption of saturated animal fats and result in a fall in ischaemic heart disease.[6] Eating plenty of fruit and vegetables and reducing meat consumption might reduce the risk of some cancers.

Finally, let's not forget that feeding grain to animals is an inefficient use of food energy in a world where millions of people go hungry.

Philip Bickley general practitioner, Shanklin House Surgery, Birmingham B20 3HE, UK
philip.bickley@nhs.net

Competing interests: None declared.

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MANAGING HYPERTENSION

Exactly how are blood pressure and mortality related?

Should treatment be extended to all those whose blood pressure increases their cardiovascular risk?

As a GP without an extensive knowledge of statistics I cannot fathom the workings of Lewington and colleagues in reference 4 of this article.[1] I'm sure that I am not alone.

Simply, is the relation between blood pressure and mortality a threshold one, as shown when raw data are analysed , or is

the relation a linear one, as shown when log surrogates are substituted?[2]

It's either one or the other.

Gary Rogers general practitioner, Fleggburgh Surgery, Norfolk NR29 3AW, UK gary.rogers@nhs.net

Competing interests: None declared.

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Author's reply

Unfortunately, there are two answers to the question, depending on whether absolute or relative risk is plotted against blood pressure.

The first is the "raw data," but the second is, in the Oxford view of risk, the more valid way of disentangling the influence of blood pressure from confounders such as age.[1] The log-linear relation between cardiovascular risk and blood pressure is proved, for all ages, down to 115/75 mm Hg. It does not automatically follow that the threshold for treatment should be reduced from 140/90 mm Hg.

But it is tragic that the National Institute for Health and Clinical Excellence (NICE) has, without evidence, recommended raising the threshold, with a near certain increase in strokes and myocardial infarction, while proposals (from the Stroke Research Network and British Hypertension Society) to test a lower threshold were rejected by the Health Technology Assessment arm of the NHS as dangerous and impractical. We partly objected to NICE's unjustified conclusions, but our greater concern was the increasing temptation for guideline and funding committees to skip the obstacles facing high impact high risk research seeking new evidence in favour of derivative meta-analyses and cost effectiveness reviews of existing evidence.[2]

The threshold question bears also on whether hypertension is "just" the skewed end of normal blood pressure distribution. The failure of large genome-wide association studies to account for more than a few mm Hg of blood pressure contrasts with the excitement of finding single mutations that explain a whole syndrome, such as hypokalaemic hypertension, in 5% of hypertensive patients.[3-5] It is unlikely that only monogenic syndromes have phenotypes that trip off the autoanalyser. It will be splitting clinicians, not lumping epidemiologists, who recognise new phenotypes.

Morris J Brown professor of clinical pharmacology, Clinical Pharmacology Unit, University of Cambridge, Addenbrooke's Hospital, Cambridge CB2 2QQ, UK
m.j.brown@cai.cam.ac.uk

Competing interests: See www.bmj.com/content/344/bmj.d8218.

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CLINICAL PREDICTION RULES

Assessing usefulness of clinical prediction rules

Clinical prediction rules and other "tests" should be assessed not only in terms of sensitivity and specificity,[1] which show only how a test detects a single diagnosis in a defined population. Sensitivity is often set high and specificity low, so that a positive result suggests only a differential diagnosis. A test result with few differential diagnoses is helpful. To differentiate between such diagnoses, a finding has to occur commonly in at least one differential diagnosis and rarely in at least one other.[2]

It is not enough to use cut-off points to designate a result as high, normal, or low. Experienced doctors often use actual results. For example, haemoglobin concentrations of 100 g/L, 60 g/L, and 20 g/L are all low, but each has its own differential diagnosis. Also, an albumin excretion rate of 30 µg/min is abnormal, but the number needed to treat with an angiotensin receptor blocker to stop one patient getting diabetic nephropathy within two years is about 100.[3] However, if the abnormal rate is 60 µg/min, the number needed to treat is about 12.[3] Thus, even if the test result is abnormal, the value itself may be more useful when choosing whether to treat.

The ability of test results to suggest differential diagnoses, to differentiate between them, and to act as diagnostic and treatment selection criteria is currently not assessed adequately. This undermines evidence based medicine and the work of organisations such as the National Institute for Health and Clinical Excellence.

Huw Llewelyn general physician and endocrinologist, Nevill Hall Hospital, Abergavenny NP7 7EG, UK huw.llewelyn@orange.net

Competing interests: None declared.

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NET HARMS OF BREAST SCREENING

RCT needed for surgery in "atypical" breast lesions . . .

"Unnecessary surgery" as a possible harm from breast cancer screening needs to be elucidated.[1] Many indeterminate or "atypical" breast lesions are found on breast core biopsy after abnormal results in screening mammography.

Most current recommendations assume that surgery is beneficial as it provides the final diagnosis and determines whether invasive cancer or ductal carcinoma in situ is present. The relative risk associated with these "indeterminate core biopsy diagnoses" (flat epithelial atypia, atypical ductal hyperplasia, and so on) is poorly defined in conflicting observational studies. The final diagnosis of invasive carcinoma can be established in only a small proportion of surgical excisions, while the diagnosis of ductal carcinoma in situ can be established in up to 30% of them. This means false negative results—that is, no type of cancer on surgical excision—in up to 70% of patients with a preliminary pathology diagnosis of "atypia."

High quality randomised controlled trials are needed to determine whether surgical excision is necessary for ductal carcinoma in situ and atypia detected by screening and core biopsy and so reduce the rates of unnecessary surgery in patients with abnormal results on mammography screening.

Nik Makretsov pathologist, St Paul's Hospital, Vancouver, Canada
NMakretsov@providencehealth.bc.ca

Competing interests: None declared.

1 Raftery J, Chorozoglou M. Possible net harms of breast cancer screening: updated modelling of Forrest report. *BMJ* 2011;343:d7627. (8 December.)

Cite this as: *BMJ* 2012;344:e890

. . . and to settle the debate

Hackshaw notes the difficulty of instituting new high quality randomised controlled trials in breast screening.[1] The debate over breast screening can be settled only by a high quality randomised controlled trial.

The study of doctors' smoking habits helped define the link between smoking and lung cancer. Might UK women doctors be interested in participating in a breast screening trial? If screening versus no screening is felt to be too radical, why not start by comparing two yearly (most programmes) and three yearly (UK) screening?

Allan P Corder surgeon, Hereford County Hospital, Hereford HR1 2ER, UK allan.corder@wvt.nhs.uk

Competing interests: None declared.

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Cite this as: *BMJ* 2012;344:e737

TOO LATE TO STOP THE BILL?

A question for Andrew Lansley

May I ask the health secretary one question?[1] Are you ignorant of the Health Act 1999 and the statement of clinical governance that was formulated so elegantly by Liam Donaldson? "Clinical governance is the framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish."

Isn't this precisely what you are ducking away from in the present bill? In which case, you must be aware of what you are ducking out of.

Was it ignorance on your part when you wrote: "The NHS currently has no legal obligation to improve continuously the quality of care"? It is difficult to see how one who wrote this was ignorant of the other.

You claim that the ability to legislate for continuous improvement motivated your reforms. I hope you realise that legislation already exists. And did you know that it is your responsibility as it stands? I cannot see, if you do plead ignorance, how you can reconcile this with your position in government. You are not telling us the real motives behind your plans. You do a great disservice to the NHS.

Anton Emmanuel Joseph retired consultant radiologist, Croydon University Hospital, Croydon CR7 7YE, UK aeajoseph@hotmail.com

Competing interests: AEJ is interested in the preservation of the NHS.

1 Lansley A. Why legislation is necessary for my health reforms. *BMJ* 2012;344:e789. (1 February.)

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How accountable will clinical commissioning groups be?

In response to McKee's concerns about privatising NHS commissioning,[1] the secretary of state says that clinical commissioning groups (CCGs) "will always be accountable for their commissioning decisions."[2] Currently, primary care trusts are public bodies staffed by public employees with no private interests. We understand how they are accountable in judicial review. CCGs will be different—they will be public authorities staffed by GPs with private interests.

Apart from their patients, GPs also have interests in the viability of their practice, its profits, and the commercial opportunities available. These are legitimate private interests that will be included in the duties of CCGs. How will the accountability of these groups differ from that of primary care trusts? Will they be subject to the "Nolan principles," especially selflessness—that holders of public office should take decisions solely in terms of the public interest, and that they should not do so to gain financial or other material benefits for themselves? This little discussed question lies at the heart of CCG accountability.

Cynics may suspect that the true motivation for the reforms is not improvement. It is to distance the secretary of state from responsibility for a restless health service facing years of hardship.

Chris Newdick professor of law, University of Reading, Foxhill House, Reading RG6 7BA, UK c.newdick@reading.ac.uk

Competing interests: None declared.

1 McKee M. Does anyone understand the government's plan for the NHS? *BMJ* 2012;344:e399. (17 January.)
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Markets cannot ration care equitably and efficiently

Initially, it was claimed we needed reform to reverse the UK's flagging health outcomes.[1] Enthusiasm for this argument has waned as claims of poor patient satisfaction, cancer outcomes, and heart disease outcomes have been shown to be false.[2]

Cost efficiency has been cited as a key objective, but this is contradicted by government action. One of its first initiatives was to create a £50m (€60m; $79m) fund for cancer drugs deemed not cost effective by the National Institute for Health and Clinical Excellence, even though this system produces among the best, most equitable, and most cost effective outcomes for cancer of all major developed countries.[2] And recently we learnt that three tiers of management are to be replaced with five, hardly a cut in bureaucracy costs.

Rather than being about rationing, these reforms are about blindly pursuing neoliberal free market policies. They are an expensive unnecessary distraction from the essential task of rationing healthcare in the face of increasingly limited resources. Although markets may occasionally improve quality and microefficiency, they cannot provide the strategic planning needed to ration care equitably and efficiently.

Attention should be directed towards tackling health service inefficiencies embedded in customs, rules, professional values, and institutional structures.[3] For example, some of the greatest improvements under Labour came from centrally determined waiting time targets, the national service framework for heart disease,[4] and the NHS cancer plan.[2] Such reforms avoid the administrative costs associated with shoehorning health services into a market model; costs that have risen from 6% to over 14% of the NHS budget since market experiments began in 1990.[5]

Danny McLernon-Billows medical student, Peninsula Medical School, Plymouth PL6 8BU, UK
danny.mclernon-billows@students.pms.ac.uk

Competing interests: None declared.

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The NHS is not a sacred cow

McLellan and colleagues' position on Lansley's NHS "reforms" is that the NHS is a sacred cow that doesn't need reform.[1] The NHS provides free healthcare to all but with no incentive for responsible usage. Unrestricted demand and poor commissioning result in distorted priorities and "postcode lotteries." Reform is needed to encourage more responsible usage. A key tool, the current purchaser-provider split, is not working as hospitals and primary care trusts collude to stay in budget, rather than use tough commissioning to expose failing providers or inadequate commissioning. There is also confusion about the NHS competing across levels of care, while at the same time cooperating. Does it make sense for all GPs, commissioners, and hospitals to be part of one organisation—essentially a monopoly? It is no way to encourage innovation, clinical excellence, and efficiency.

The system must provide increasing value for money to stay still. The "any willing provider" model might have ensured real competition in the hospital sector and improved commissioning, but the proposals have been watered down or removed from the bill. The NHS must reduce administration and overstaffing. In the UK and Germany, 75% of the healthcare budget is spent on people, but the NHS employs more people than Germany's healthcare system, even though Germany has 15 million more people.

Budgets must be integrated across primary, secondary, and tertiary care for collaboration to provide benefits. Competition is essential for efficiency and savings. The main weakness of Lansley's reforms is that they are largely the work of one politician. We need a royal commission or similar apolitical rational forum on the future of healthcare in England. The best brains may be able to design collaboration with competition.

Adam P Fitzpatrick consultant cardiologist, Fernleigh Consulting Centre, Wilmslow, UK
adam.fitzpatrick@cmft.nhs.uk

Competing interests: None declared.

1 McLellan A, Middleton J, Godlee F. Lansley's NHS "reforms". *BMJ* 2012;344:e709. (30 January.)

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We need a shift from reactive to proactive care

Pity the blind men who find an elephant and each is convinced that he has the correct interpretation of this new object. If the elephant is incomprehensible to a blind man what hope is there for GPs seeking to understand the NHS reforms?[1]

Most GPs want to provide a good service for their patients. The part of the elephant that is in front of them is their accessibility to patients, the primary-secondary care interface, and the manpower and financial resources of the NHS—a large part of the elephant. Commissioning is not just about service redesign but also about improving service delivery.

The quality of primary care is crucial to service efficiency. The proposed reforms provide levers to engage with these challenges in a way that previous incarnations of commissioning did not.

We must be open minded about these reforms because, despite the opposition, no credible alternatives have been proposed. Current Royal College of General Practitioners and BMA proposals for commissioning groups of more than one million patients will not foster local responsibility for quality of service or effective local health and social partnerships. The BMA's opportunistic call for clinical commissioning groups to have a choice of commissioning support places current primary care trust staff in jeopardy.

McKee's argument that change is not needed because the system performs well by international standards does not acknowledge that we need a fundamental cultural shift from reactive to proactive care to provide sustainable healthcare in the 21st century.[2]

The privatisation debate is ideological and should instead be about achieving the best outcomes, as a recent *BMJ* paper comparing a commercial weight loss service with a GP based service did.[3]

John Matthews general practitioner chair, CareFirst Clinical Commissioning Group, Wallsend NE28 7LP, UK
john.matthews@nhs.net

Competing interests: GP chair of clinical commissioning group.

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