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# LETTERS



BRIAN EVANS/SPL

## MANAGING SEPSIS

### Surviving sepsis campaign's recommendations

MacKenzie and Lever describe the management of sepsis in some detail.<sup>1</sup> As one who is often responsible for the initial diagnosis and management, I find recommendations from the surviving sepsis campaign helpful. This campaign was formed in 2002 to combat worsening trends in the incidence and mortality relating to sepsis.<sup>2</sup>

This means that if a patient has two or more of the systemic inflammatory response criteria (box 1), then the six hour resuscitation bundle should be triggered (box 2). The first four steps can be carried out immediately on the ward. There has

#### Box 1 | Systemic inflammatory response criteria

Temperature  $<36^{\circ}\text{C}$  or  $>38^{\circ}\text{C}$   
Respiratory rate  $>20$  breaths/minute  
Heart rate  $>90$  beats/minute  
White blood cell count  $<4 \times 10^9$  cells/l or  $>12 \times 10^9$  cells/l

#### Box 2 | Sepsis resuscitation bundle

1. Measure serum lactate
2. Obtain blood cultures before giving antibiotics
3. Give broad spectrum antibiotics quickly
4. Treat hypotension or raised lactate (or both) with fluids
5. Give vasopressors for ongoing hypotension
6. Maintain adequate central venous pressure
7. Maintain adequate central venous oxygen saturation

been clear evidence for the positive effect of these interventions on morbidity and mortality relating to sepsis.<sup>2,4</sup>

A recent audit we conducted in a district general hospital showed these interventions were not being instigated regularly—in patients fulfilling criteria for sepsis, only 57% had blood cultures within six hours, 30% had serum lactate measured, 53% had arterial blood gases measured, 80% were given empirical antibiotics, and 97% had adequate fluid resuscitation. Reports suggest that this reflects the situation elsewhere.<sup>5</sup>

Better education regarding these simple interventions would be a good start to tackling failings in the diagnosis and initial management of sepsis.

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- 1 Mackenzie J, Lever A. Management of sepsis. *BMJ* 2007;335:929-32. (3 November.)
- 2 Poulton B. Advances in the management of sepsis: the randomised controlled trials behind the surviving sepsis campaign recommendations. *Int J Antimicrob Agents* 2006;27:97-101.
- 3 Houck PM, Bratzler DW, Nsa W, Ma A, Bartlett JG. Timing of antibiotic administration and outcomes for Medicare patients hospitalised with community-acquired pneumonia. *Arch Intern Med* 2004;164:637-44.
- 4 Rivers E, Nguyen B, Havstad S, Ressler J, Muzzin A, Knoblich B, et al. Early goal-directed therapy in the treatment of severe sepsis and septic shock. *N Engl J Med* 2001;345:1368-77.
- 5 Kinsella MT, Biltoft JM, Marez H, Glaser D, Kwong N, Restrepo C. Improving mortality from severe sepsis by implementation of surviving sepsis guidelines at a community teaching hospital. *Crit Care Med* 2006;34:A109.

## FAMILIAL HYPERCHOLESTEROLAEMIA

### Screening needs a fresh approach

Hadfield and Humphries favour cascade testing for familial hypercholesterolaemia (identifying relatives of affected individuals)<sup>1</sup> over the child-parent screening approach<sup>2</sup> but accept that cascade testing may only identify 50% of affected cases in the population. Cascade testing may have been “tried and tested” and found to be useful in identifying cases of familial hypercholesterolaemia within families, but it is not tried and tested as a general screening policy.<sup>3</sup> Identifying all, or most, families first is a prerequisite for cascade

testing, and this has not been achieved in any such programme.<sup>4</sup>

Expert groups have not recommended a general screening approach because cholesterol measurement is a poor screening test at birth and in adults. Our screening meta-analysis showed that between 1 and 9 years it is a good screening test—detecting about nine out of 10 affected individuals with a low false positive rate (about one in 1000). This finding provides the basis for revisiting cholesterol measurement as a general screening policy and testing it in a pilot implementation project.

It is probably best to start statin therapy in children with familial hypercholesterolaemia once they become teenagers because clinical manifestations of the disorder are rare before this time. Hopcroft believes that screening would cause anxiety and confer little benefit to the child until cholesterol lowering treatment is started.<sup>5</sup> But the detection and treatment of the parent who is also affected, made possible by screening the child, also benefits the child in preventing the premature death of the parent. The essence of our screening proposal is that child and parent both benefit, and therefore the family as a whole.

All screening involves a degree of anxiety. Indeed it is the anxiety of having a serious medical disorder and the desire to avoid its harmful consequences that forms the rational basis for being screened. Anxiety itself is not harmful; it is excess or inappropriate anxiety that is harmful, and with care much can be done to minimise this in medical screening, particularly in familial hypercholesterolaemia, for which simple, safe, and effective treatment is available.

There is no reason why screening for familial hypercholesterolaemia should “cast a shadow on childhood”<sup>5</sup> and every reason why it would save the life of a parent and later the life of the child when an adult. David S Wald senior lecturer, Jonathan P Bestwick statistician, Nicholas J Wald professor, Wolfson Institute of Preventive Medicine, Barts and the London School of Medicine and Dentistry, London EC1M 6BQ  
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- 1 Hadfield GS, Humphries SE. Cascade testing is tried and tested and cost effective. *BMJ* 2007;335:683. (6 October.)

- Wald DS, Bestwick JP, Wald NJ. Child-parent screening for familial hypercholesterolaemia: screening strategy based on a meta-analysis. *BMJ* 2007;335:599. (22 September.)
- Is cascade testing a sensible method of population screening? *J Med Screen* 2004;11:57-8.
- Morris JK, Law MR, Wald NJ. Is cascade testing a sensible method of screening a population for autosomal recessive disorders? *Am J Med Genet* 2004;128A:271-5.
- Hopcroft KA. Child-parent screening may have adverse psychological effects. *BMJ* 2007;335:683. (6 October.)

## LYME WARS

### Let's tackle the testing

The two tier testing system endorsed by the Centers for Disease Control and Prevention (CDC) has a high specificity (99%) and yields few false positives. But the tests have a uniformly miserable sensitivity (56%)—they miss 88 of every 200 patients with Lyme disease (table). By comparison, AIDS tests have a sensitivity of 99.5%—they miss only one of every 200 AIDS cases. In simple terms, the chance of a patient with Lyme disease being diagnosed using the commercial tests approved by the Food and Drug Administration and sanctioned by the CDC is about getting heads or tails when tossing a coin, and the poor test performance assures that many patients with Lyme disease will go undiagnosed.

Sensitivity and specificity of commercial two tier testing for Lyme disease

Study	Sensitivity	Specificity
Schmitz et al. <i>Eur J Clin Microbiol Infect Dis</i> 1993;12:419-24	66%	100%
Engstrom et al. <i>J Clin Microbiol</i> 1995;33:419-27	55%	96%
Ledue et al. <i>J Clin Microbiol</i> 1996;34:2343-50	50%	100%
Trejejo et al. <i>J Infect Dis</i> 1999;179:931-8	29%	100%
Nowakowski et al. <i>Clin Infect Dis</i> 2001;33:2023-7	66%	99%
Bacon et al. <i>J Infect Dis</i> 2003;187:1187-99	68%	99%
Mean of all studies	56%	99%

Until we scrap the worthless commercial tests for Lyme disease and find a better way to make the diagnosis of this protean illness, the “Lyme wars” will continue unabated.<sup>1</sup>

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- Tonks A. Lyme wars. *BMJ* 2007;335:910-2. (3 November.)

## RESUSCITATION DECISIONS

### Yes, but who is in charge?

I definitely support nurses' involvement in resuscitation decisions.<sup>1</sup> I have worked on teams where nursing staff were always involved before a “not for resuscitation” decision was made, and if they did not agree the patient would remain “for resuscitation.” I have also worked for consultants who will not make patients not for resuscitation.

What will happen if the consultant responsible for a patient wishes them to remain for resuscitation but a senior nurse feels that they should not be for resuscitation? Other doctors may agree with the nurse's decision but in the end I would want clarification as to who has the final say.

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- White C. Cardiopulmonary resuscitation decisions should be extended to nurses. *BMJ* 2007;335:901. (3 November.)

## RESISTANCE TO HIV DRUGS

### Detainees are affected

The problem of discontinuous antiretroviral therapy in the prison healthcare system leading to increased viral resistance applies also to detainees held by the immigration authorities. Many such detainees are held for a long time after the initial decision to deport, pending the resolution of legal challenges.<sup>1</sup> Detainees are often moved between detention centres and immigration removal centres as their cases are considered, and their antiretroviral drugs often do not follow them. It may be weeks before the local genitourinary clinic is made aware that a transfer has taken place, which causes a large gap in treatment.

Consequently, when these patients are eventually deported, they have developed a resistance pattern that requires second or third line antiretrovirals, which may not be available in the countries to which they are deported, even if those countries have some provision of antiretrovirals. It is a serious failure of the healthcare systems provided by the Border and Immigration Agency that the treatment of HIV positive detainees is undermined.

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- Laurent C. Prisoners are developing resistance to HIV drugs because their care is fractured. *BMJ* 2007;335:583. (22 September.)



## ALCOHOL CONFUSION

### What is a unit?

A recent *BMJ* editorial<sup>1</sup> discussed the World Cancer Research Fund (WCRF) report on cancer<sup>2</sup> and commented on the report's recommendation that men should drink no more than two units of alcohol a day and women no more than one unit a day. These recommendations are much lower than current government advice in Britain.<sup>2</sup> This highlights a widespread confusion regarding units of alcohol and “standard” drinks—WCRF “drinks” contain 10-15 g of ethanol and British units contain 8 g.

Although a unit is often taken as one drink (half a pint of beer or one glass of wine), this is not the case. One pint of beer (4.2%) contains 2.4 units and a 175 ml glass of wine (12%) contains 2.1 units. The Department of Health leaflet, *How Much is Too Much?*, promises information on the number of units in alcoholic drinks. It advises using smaller glasses, stating that a 125 ml glass of wine contains one unit.<sup>3</sup> This would be true if the alcohol content was 8%, but at a more typical 12% it contains 1.5 units.

Furthermore, the standard drink varies across the world. The WCRF report is an international publication, which may explain the wide range of ethanol contents per drink (10-15 g) in the recommendation.

In 1991, Miller et al issued “a plea for consistency” regarding alcohol content.<sup>4</sup> Given the ambiguity present in the WCRF report, and the confusion evident even in a *BMJ* editorial, it is surely time to heed that plea.

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- Key T. Diet and the risk of cancer. *BMJ* 2007;335:897.
- World Cancer Research Fund/American Institute for Cancer Research. *Food, nutrition, physical activity, and the prevention of cancer: a global perspective*. Washington DC: AICR, 2007.
- Department of Health. *How much is too much?* 2006. London: DoH. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\_4139672.
- Miller WR, Heather N, Hall W. Calculating standard drink units: international comparisons. *Br J Addiction* 1991;86:43-7.