Mandatory hepatitis B virus testing for doctors

Sir—We welcome the announcement that Canada intends to introduce mandatory hepatitis B virus (HBV) testing for doctors and dentists in an Aug 8 news item (p 466).1 Too many patients have been infected by their physicians during exposure-prone procedures. Even knowledge about the infectious status and careful adherence to recommendations cannot reliably prevent transmission. Mandatory vaccination and proof of immunity, as requested by the Canadian Health Authority, (http://www.hc-sc.gc.ca) seems to be an effective way to identify physicians without protection. Then further testing will eventually detect existing HBV infection. According to the Canadian Guidelines, HBeAg-positive physicians will not be allowed to continue exposure-prone procedures.2 This approach is in our opinion inadequate. HBeAg-negative mutants of HBV may reach high titres and may cause particularly severe hepatitis B. Furthermore, transmissions of HBV from four HBeAg-negative surgeons to patients have been documented.3

A more reliable estimate of the infectivity can be obtained by testing serum concentrations of HBV DNA. In 1992, a committee of the German Society of Virology published a recommendation that HBsAg-positive physicians will not be allowed to continue exposure-prone procedures.3 This approach is in our opinion inadequate. HBeAg-negative mutants of HBV may reach high titres and may cause particularly severe hepatitis B. Furthermore, transmissions of HBV from four HBeAg-negative surgeons to patients have been documented.3

The Lancet, vol 352, p 466.


Surveillance into crowd control agents

Sir—In response to your July 18 editorial,1 we draw your attention to our surveillance into crowd control agents (CCA)—eg, CS (orthochlorobenzylidenemalonitrile) gas, mace (chloracetothenon, CNgas), and pepper spray—and possible adverse health effects after exposure.2

The National Poisons Information Service (London) (NPIS[L]) collates information concerning patient inquiries. In 1994, NPIS(L) was contacted about 327 casualties exposed to CCAs. In 1995, this figure rose to 654, in 1996, 810, and in 1997, 597. Enquiries to NPIS(L) are made in cases in which patient management advice for patients is required. It is likely that as the legal use of CS spray becomes more widespread, medical personnel will become familiar with the recommended treatment and will not seek advice from poison centres.3 Therefore, the data reported above, and on which our research and surveillance for 1998 are based, are likely to be only the tip of the iceberg.

In 1996, various English police forces started to use CS sprays for their immediate short-lived effects. The police incapacitant used in England contains CS (5% concentration), the solvent methyl isobutyl ketone (MIBK), and a nitrogen propellant. A review of The English-language press found no reports of the use of MIBK, and CS in field conditions, although concerns have been expressed.

Analysis of the CCA enquiries made to NPIS(L) in 1997 found that 454 (76%) were within 6 h of exposure and 143 (24%) were made after 6 h, with 11% of these latter enquiries made more than 36 h after exposure. Patients are not always exposed to CCA alone, and clinical effects may be due to other agents. The table shows the differences in observed clinical effects occurring within 6 h of exposure and later. Crude analysis of the results suggests significant differences in dermal and gastrointestinal symptoms between the two periods. CS spray has been reported to cause erythematous contact dermatitis and allergic contact dermatitis with vesicles, blisters, and crusts.4 CS was tested extensively by Himsworth5–6 and others7 and is generally shown to be safe and efficient with short-lived, self-limiting effects. However, the initial findings that we now report show that delayed adverse effects may be occurring as a result of CS spray. As a consequence of this crude analysis we are undertaking a further study to investigate adverse health effects after exposure to CCAs. We have followed up all CCA incidents reported to the NPIS[L] over 7 months (January to July, 1998) with three aims. First to determine short-term and

<table>
<thead>
<tr>
<th>Clinical effects reported within 6 h of exposure</th>
<th>No (%)</th>
<th>Clinical effects reported after 6 h of exposure</th>
<th>No (%)</th>
<th>Crude differences between proportions p-value (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocular irritation, laceration</td>
<td>191 (32)</td>
<td>Ocular irritation, corneal abrasions</td>
<td>215 (36)</td>
<td>0.2 (0.05 to 0.4)</td>
</tr>
<tr>
<td>Dermal rash, irritation, erythema, dermatitis</td>
<td>54 (9)</td>
<td>Dermal blisters, bullae, eczema, oedema</td>
<td>203 (34)</td>
<td>&lt;0.0001 (0.15 to 0.30)</td>
</tr>
<tr>
<td>Respiratory (coughing, short of breath)</td>
<td>30 (5)</td>
<td>Respiratory (coughing, short of breath)</td>
<td>24 (4)</td>
<td>0.37 (0.02–0.11)</td>
</tr>
<tr>
<td>Neurological (headache, drowsy)</td>
<td>60 (10)</td>
<td>Neurological (headache, drowsy)</td>
<td>7 (2)</td>
<td>0.02 (0.09 to 0.4)</td>
</tr>
<tr>
<td>Cardiac (tachycardia, hypotension)</td>
<td>24 (4)</td>
<td>Cardiac (chest pain)</td>
<td>36 (6)</td>
<td>0.26 (0.04 to 0.14)</td>
</tr>
<tr>
<td>Gastrointestinal (buccal irritation, vomiting)</td>
<td>42 (7)</td>
<td>Gastrointestinal (buccal irritation, vomiting)</td>
<td>66 (11)</td>
<td>&lt;0.0001 (0.04 to 0.14)</td>
</tr>
<tr>
<td>None</td>
<td>48 (8)</td>
<td>None</td>
<td>6 (1)</td>
<td>. . . .</td>
</tr>
<tr>
<td>Clinical effects not stated by inquirer</td>
<td>119 (20)</td>
<td>Clinical effects not stated by inquirer</td>
<td>3 (0)</td>
<td>. . . .</td>
</tr>
<tr>
<td>Other</td>
<td>30 (5)</td>
<td>Other</td>
<td>3 (0)</td>
<td>. . . .</td>
</tr>
</tbody>
</table>

Total clinical effects of Crowd Control Agents in 1997 in 597 patients reported to the National Poisons Information Service (London)
Placebo needle for acupuncture

Sir—K Streitberger and J Kleinhenz’s report (Aug 1, p 364)
1 of the development of a validated dummy placebo needle for acupuncture research is a creative step forward in the acupuncture research conundrum. Acupuncture has evaded rigorous methodological safeguards.2 The device does not solve all the questions.

This new sham will work for many (if not most) acupuncture point locations. But it may not be suitable for some inportant sites, for example, the toes, fingers, and scalp. Also, the device may not allow significant diversity in manner of stimulation methods or variations in needle-insertion direction. A more important limitation, however, is that the device does not surmount the problem of double blinding3 (the masking of the practitioner). The report skirts the issue that it is generally impossible to conceal a procedure that relies on practitioner acumen,4 which is an obstacle for any potential validation of acupuncture. Evidence exists that practitioner expectation, enthusiasm, and knowledge of any therapeutic intervention is routinely communicated to the patient in a single-blind protocol.5 The recent National Institutes of Health’s Consensus Development Conference on Acupuncture seemed to accept single-blind assessment as the only plausible method in acupuncture research.4 Should we rest here?

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Nursing nursing back to health

Sir—Your editorial (July 25, p 249) neatly summarises what must be the biggest crisis facing the National Health Service (NHS): the worst shortage of qualified nurses in its history. As we celebrate 50 years of NHS nursing and the huge contribution that nurses have made to the National Health Service, we mark also a 50-year history characterised by lack of investment in planning the nursing workforce.

Nurses are the largest workforce in the health service. Yet, poor workforce planning is perhaps inevitable when nursing is still thought of by some as an instinctive, caring job fit for any “good woman”. Nursing has long suffered from myth making, but none worse than the myth which claims that nurses are not interested in developing their skills as expert members of the health-care team.

Employers, governments, and, most importantly, patients recognise the value of expert nurses. They realise that nurses provide cost-effective, high-quality care. But although everyone appreciates the value of expert nurses, we are still failing to invest properly in the planning, education, and training of the nursing workforce. If we value the contribution that nurses make to the NHS, we need to value their careers. It is impossible to do one without the other. We are now training near graduate-level nurses who are eager to become important members of the health-care team, yet expecting them to stay on low-grade pay for 10 years or more.

Today’s problems were documented in the 1932 Lancet Commission on Nursing and well before that. When it comes to the NHS, politicians are not very good at learning from history. If the Government is to meet its targets to shorten waiting lists for patients and improve standards of care, we must learn from the mistakes of the past.

The stakes are too high if we do not.

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High frequency radio keeps mosquitoes at bay

SIR—At a time when increasing emphasis is placed on evidence-based medicine, it was regrettable that you published Nigel Glass’s Aug 22 news item (p634)1 on a radio station that claims to protect its listeners from mosquito bites by broadcasting a high-pitched sound.

No evidence, other than assertions about listeners’ responses, is presented that the sound affects the behaviour of biting female mosquitoes. In the 1970s and 1980s, many biting counts were made by entomologists worldwide with hand-held buzzers turned on or off, and no difference in biting rate was ever found. Several companies that sold these buzzers were successfully prosecuted and fined under the UK Trade Descriptions Act. The companies were unable to present any evidence apart from letters from apparently satisfied customers.

Most commercially available buzzers are set at about 6 kHz, but we have also tested variants that are supposed to mimic the clicking sound of dragonflies and ultrasonic versions, which would seem to be more similar to the radio broadcasts. In no case was there any significant difference in biting rate with the device on and with it off. I suggest that Glass challenges the radio station to carry out such a test before he repeats their unsubstantiated and commercially motivated assertions.

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