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Time for action on hepatitis B immunisation

SIR,—Dr Malcolm S Gatley (21 February, p 509) overlooks the epidemiology of viral hepatitis and places the wrong emphasis and interpretation on the reported yearly incidence of hepatitis B in nurses in Britain of four cases per 100 000 per year for 1980-4. In response, we would like to make four points.

Firstly, the ratio of subclinical and anicteric infections to clinical infections with all types of viral hepatitis varies with age and outbreak, but it is generally accepted to range from 5 to 1 to as many as 20 to 1. In addition, cases of subclinical and anicteric hepatitis B are reported only in well circumscribed outbreaks, when extensive serological tests and biochemical tests of liver function are performed. Some cases may progress to persistent infection and chronic liver disease. It is conservatively estimated that there are 200 million carriers world wide and that 40 million will die of the long term sequelae of hepatitis B, which is now a preventable and potentially eradicable disease.¹

Secondly, notification rates of acute clinical hepatitis are known to be notoriously unreliable, and they vary according to seasonal factors from country to country, district to district, and indeed practice to practice. Notification rates thus vary from 10% to 50% of clinically identified patients with jaundice. It follows, therefore, that published prevalence rates are the minimum figures available. An example is the finding of hepatitis A antibodies in over half of healthy adults in early middle age in Britain, and hepatitis B surface antibody in 4-6% of the population, indicating past infection. If hepatitis B core antibody is included then, based on the blood donor population (which is highly selected), another 2-3% have been infected with hepatitis B virus.

Thirdly, we have been assured by the Royal College of Nursing and others that it is impossible to identify nurses at "high risk" of exposure to hepatitis B as staff rotate continuously and their duties vary. Because of this it has been recommended that nurses should be offered immunisation during their training.

Fourthly, the World Health Organisation and various national health authorities have recommended immunisation against hepatitis B for health care workers and medical, dental, and nursing staff who have frequent contact with blood or needles (or indeed direct contact with patients or body fluids).^{2,3}

Dr Gatley's other point concerns the firmly established safety of the currently licensed hepatitis B vaccines.³ What is considered to be a "relatively safe" vaccine? Several million doses of hepatitis B vaccine have now been given. How many serious reactions, let alone anaphylaxis and neurological complications, is Dr Gatley aware of or have been documented? Furthermore, Dr Gatley's question asking whether the risk of immunisation of all nurses (about 400 000) employed by the NHS in

Britain would be greater than the risk of infection suggests a rather unconventional view of the control of a clinically important, preventable disease, whose long term sequelae include hepatocellular carcinoma.⁴

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Head injuries in the elderly

SIR,—The futility of performing radiography on the skulls of many patients with head injuries has been shown by a recent study of all such patients attending the accident and emergency departments of 31 hospitals in the United States.¹ The study entailed a detailed follow up of 7035 patients, of whom 4068 underwent skull radiography. No intracranial injuries were discovered among the 5254 "low risk" patients (75% of all attenders with head injuries)—namely, those who were asymptomatic or who presented with headache, dizziness, scalp bruising, swelling, laceration, contusion, or abrasion without other specified signs of head injury. The authors concluded that "no intracranial injury would have been missed by excluding skull radiography for low risk patients." In their recommendations for management of the remaining 25%, who were at "medium" or "high" risk of major intracranial injury, the authors stated that "skull x ray may (rarely) be helpful, if positive, but does not exclude intracranial injury if normal."

These results are entirely consistent with the findings of a large multicentre study conducted in Britain by the Royal College of Radiologists, which investigated 5850 patients with head injuries undergoing skull radiography and the guidelines derived from it.^{2,5} These guidelines have since been tested in a busy accident and emergency unit and the results published.⁶ Briefly, no major head injuries went undetected, admissions did not increase, and the use of skull radiography was cut by half from 65/1000 to 32/1000 attenders.

Two groups of authors have also recently made recommendations for the use of skull radiography in the management of head injuries. Mr Gordon Brocklehurst and coworkers (7 February, p 345) concluded that their study of 752 patients admitted to one hospital with head injury had "confirmed the value of obtaining skull radiographs . . . in all patients with a history or signs of a definite impact to the head or both." Mr S Galbraith (7 February, p 325) recommended not only extra vigilance in the management of head injuries in the elderly but also that a skull radiograph be taken in every case, and he concluded, without supporting data, that this benefit should "not be denied to patients simply because they are old."

It is important to consider how these opinions may be at such variance with the above conclusions, arrived at independently by two large teams of investigators working on different sides of the Atlantic. The problem is twofold. Firstly, progress is made by refuting the evidence of others rather than ignoring it. Secondly, guidelines for the management of patients with head injury cannot be

derived from data on patients with head injury admitted to a neurosurgical ward as such patients are inevitably highly atypical of all patients with head injury. Most patients with head injury never reach such a ward because they are dealt with by the general practitioner, seen in an accident and emergency unit, or observed on a general surgical ward.

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Oedema of the ileum: a possible manifestation of food allergy

SIR,—The association between giant urticaria, abdominal pain and radiological evidence of ileal mucosal oedema reported by Drs Duncan Robertson and Ralph Wright (7 February, p 350) is interesting, but to claim that this is due to a possible food allergy would seem to be stretching the point.

Firstly, there was no laboratory evidence of an allergic reaction. Secondly, the diets used were supposed to have unmasked any other possible idiosyncrasy yet did not. Thirdly, the foods used must in any case have some antigenic potential even if a so called elemental diet was used. Even if the reaction has an immunological basis, not necessarily type I allergic, there seems to be no reason to believe that it was caused by an orally ingested agent without further dietary analyses.

Finally, is it necessary to carry out a barium meal to show that the patient has a gut ache, which the doctor believes just might be caused by a food reaction?

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AUTHORS' REPLY.—The diagnosis of food allergy is always difficult and often made incorrectly on the basis of little evidence. We know of several patients in whom an incorrect diagnosis of food allergy has delayed the diagnosis of diseases such as carcinoma of the colon and inflammatory bowel disease, and we believe that it is essential to investigate patients conventionally before making such a diagnosis. Our patient, who had colicky abdominal pain suggestive of intermittent intestinal obstruction, certainly warranted radiological investigation.

We suggest that the intermittent mucosal oedema and associated urticaria in this patient had an allergic basis and that the antigen probably entered through the gut. Other mechanisms, such as non-allergic reactions to food, were mentioned, however, and may be equally likely. There was no laboratory evidence of allergic reactions or of the condition suggested by the clinical presentation: C1 esterase inhibitor deficiency. Nevertheless, abnormal concentrations of immunoglobulins and complement or circulating eosinophils often cannot be shown in patients with allergic reactions.