Extent of hepatitis B immunisation among medical and dental students

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Hepatitis B virus may affect 1 in 20 of the earth's population.¹ Transmission is through blood, sexual intercourse, and unsterile inoculation injury; vertical transmission occurs in utero and post partum. The consequences of infection are potentially fatal and include chronic liver disease, cirrhosis, and primary hepatocellular carcinoma.

In view of the above, immunisation policies have been implemented, varying with prevalence of the disease. In the United Kingdom the Department of Health has stated that from mid-1995 all workers conducting invasive tasks must have immunity from hepatitis B.² In the wake of this the Committee of Vice Chancellors and Principals has stated that all prospective medical and dental students should be immunised against hepatitis B before admission in October 1996.³ We investigated uptake of immunisation and depth of knowledge among Dundee's medical and dental students in June 1994.

Subjects, methods, and results

The deans of the medical and dental schools approved distribution of a confidential, structured, and anonymous questionnaire to all students in the undergraduate years of the curricula (649 medical students, 224 dental students). Questionnaires were distributed in lectures. Reminders were placed on notice boards in the medical and dental schools.

Reply rates were 53% (342/649) among medical students and 69% (154/224) among dental students. The table shows the uptake rates and knowledge of hepatitis B immunisation in the two groups. Thirty eight of the 65 medical students (58%) and 40 of the 52 dental students (77%) who had not completed the immunisation regimen were still undergoing

Uptake and knowledge of hepatitis B immunisation among Dundee medical and dental students in 1994

	Medical students (n=342)	Dental students (n=154)
Aware of availability of immunisation	339 (99)	153 (99)
Had completed immunisation regimen	277 (81)	102 (66)
Had titre measured	133 (48)	62 (61)
Had not asked for titre measurement	144 (52)	40 (39)
Aware of recommended titre after immunisation	94 (27)	28 (18)

Retraction of article

Recurrent spontaneous abortion and polycystic ovarian disease: comparison of two regimens to induce ovulation

Following an investigation carried out by St George's Hospital Medical School, London, of 23 scientific papers written by Mr J M Pearce and various co-authors between January 1989 and December 1994 the dean of the school has written to the *BMJ* to say that there are reasons to cast doubt on the veracity of the following paper: Johnson P, Pearce J. Recurrent spontaneous abortion and polycystic ovarian disease: comparison of two regimens to induce ovulation. *BMJ* 1990;300:154-6.

The dean's report states that the study had apparently taken place before Dr Johnson joined the department in August 1988 and that she was handed a sheet of handwritten summary data by Mr Pearce which she then shaped into a paper on his instructions. "No identifiable patient details have been traced. Neither the names of the patients nor their hospital numbers appear on the summary data sheets to provide direct corroboration that the work took place." The medical school's investigation followed allegations that he had fraudulently claimed to have performed an operation (17 June, p 1554). We therefore think this is sufficient evidence for us to retract the article.

immunisation. Fifteen of the 133 medical students (11%) and five of the 62 dental students (8%) who had their titre measured showed an inadequate response to the first regimen and subsequently required booster immunisation.

Quite strikingly, 248 medical students (73%) and 126 dental students (82%) were unaware of the currently recommended antibody titre. Furthermore, 149 medical students (44%) and 83 dental students (54%) believed that their immunisation would be weakened by exposure to hepatitis B virus. Interestingly 41 medical students (12%) and four dental students (3%) expected that immunisation conferred immunity for life from hepatitis B. Lastly, 36 medical students (11%) and 12 dental students (8%) stated that HIV posed a greater risk through autoinoculation injury than hepatitis B virus.

Comment

Effective immunisation for health care workers and students is now an accepted and important measure.⁴ All Dundee's medical and dental students receive information in lectures and in circulars from the faculty office about the need for hepatitis B immunisation and titre measurement. Despite this, compliance in vaccine uptake and titre measurement was disappointingly low. Furthermore, many students were unaware of the risks of vaccine failure and the consequent lack of protection in believing that immunity is for life. These attitudes, combined with our noted failure rates of the vaccine, undoubtedly provide a potential risk for future practitioners.

Whereas the responsibility currently lies with students to ensure adequate immunity both after immunisation and throughout their careers, from October 1996 this responsibility could be abrogated to medical and dental establishments. To ensure that the numbers of students who are immunised is on parity with those who are immune, these establishments should offer advice and counselling to students before admission—for example, at interview, in information from the University Central Admissions Service, in faculty handbooks, or as part of a conditional offer—and at appropriate intervals throughout their undergraduate careers. These measures may improve deficiencies in the management of student hepatitis B immunisation highlighted in our report. If such measures are not implemented students' immunity might be compromised at a critical time in their lives—namely, their clinical years, when they are arguably most at risk of exposure to hepatitis B virus through inexperience. The cost of such aftercare and surveillance should be weighed against the risk of relaxing the drive for excellent cross infection control.

Since this study was undertaken all Dundee's clinical medical and dental students have been tested and immunised against hepatitis B. In addition, all students receiving an offer of a place in the medical or dental school are informed that it is conditional on their producing certification that they are not carriers of hepatitis B.

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1 Department of Health. *Immunisation against infectious disease*. London: DoH, 1992:110-1.

2 Tonks A. NHS adopts tougher measures against hepatitis B. *BMJ* 1993;307:522.

3 Kingman S. Hepatitis B status must be known for medical school. *BMJ* 1994;308:876.

4 Oates BC, Sidebottom AJ, Maxwell SR. Efficacy of hepatitis B vaccination: knowledge among clinical medical students. *BMJ* 1993;307:301.

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