girls of 11–14, and the groups of girls 8–10 and boys 11–14 is real (significant at $P < 0.000001$).

If a positive X-ray is taken as a crude measure of the severity of an injury why do early adolescent girls present more frequently with minor complaints? The sudden fall in positive X-rays in girls of 11 years and over suggests that this is not a biological phenomenon. Local children move to senior school at 11 years and I suggest that this behaviour is learnt there.

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Immunization against tetanus

Sir

The case report of tetanus in a 63-year-old female prompts me to report our experience of the immune status of patients in the Accident and Emergency Department.

Thirty-two consecutive patients, whose injury and history of inadequate past immunisation indicated the necessity for immediate passive tetanus immunisation, had a blood specimen taken prior to the injection of tetanus immunoglobulin and toxoid. Analyses showed that 29 of the 32 had no detectable antibodies to tetanus. These were all female patients over the age of 45 years who had, in the past, no access to routine immunisation procedures in childhood and, unlike many males in the same age group, had not served in Her Majesty's Forces, either during World War II or for the period of compulsory National Service. We have also noted that in the past 3 years increasing numbers of children under school age are presenting unprotected, because parents were apprehensive regarding the whooping cough vaccine, and, as a result, refused immunisation for their infants.

We regard patients in these age groups 'as at risk' and, unless they can provide confirmation of adequate immunisation procedures, usually resulting from previous injury, all are offered human tetanus immunoglobulin in addition to the first dose of tetanus toxoid course. No adverse effects have been recorded, but the necessity to complete the toxoid immunisation is emphasised as the efficacy of subsequent repeated doses of immunoglobulin alone has not been clinically tested.

Failure to administer immunoglobulin, which is available both commercially and from Blood Transfusion Services, has already been the subject of an action for negligence in the Courts, an action which I think is perfectly justified. Tetanus is a totally preventable disease. The optimum prevention procedure is active immunisation, but the ready availability of immunoglobulin associated with failure to offer it to the unprotected patient can only reflect lack of knowledge, inexperience on the part of the responsible medical officer or the failure to provide a standardised programme of protection against tetanus in our accident and emergency departments.

I have seen only one case of tetanus in 25 years, and the patient was known to be unprotected but refused immunisation by injection. He died.

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