

which may lead to serious postoperative bleeding are more commonly associated with certain cephalosporins having the *N*-methylthiotetrazole side chain²² but have been noted with others—such as cefuroxime—lacking this side chain.²³

Some investigators have suggested that the pharmacokinetic profile of an antibiotic is important if it is to be given only preoperatively and have advocated the use of antibiotics with prolonged elimination half lives—for example, ceftriaxone,¹¹ which is not available in Britain. Our results imply that this is not necessary for operations lasting up to 90 minutes. The half lives of both cephalosporins used here are in the order of one to one and a half hours. Cefotaxime, however, undergoes desacetylation to a metabolite, desacetylcefotaxime, which has broad spectrum antibiotic activity and hence prolongs the duration of antibiotic activity of the parent drug.²⁴ Nevertheless, for operations which extend beyond 90 minutes our results suggest that a preoperative “topping up” dose may be beneficial (though only 107 of 907 (11.8%) operations in this study were of greater than two hours’ duration). It is evident that prophylactic postoperative doses of cefuroxime plus metronidazole confer no additional benefit over a single preoperative dose of cefotaxime plus metronidazole.

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Stimulating reporting of adverse drug reactions by using a fee

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Despite its limitations, spontaneous (yellow card) reporting of adverse drug reactions is the most effective surveillance system of drugs in clinical practice. Nevertheless, fewer than 10% of reactions are usually reported.^{1,2} Because of the use of multiple and potent drugs one would expect reactions to occur more commonly in hospital than the reported 0.05%.³ To enhance the level of reporting we performed two studies: firstly a pharmacist collated reports, and, secondly, we offered a fee for each yellow card received.

Patients, methods, and results

In a six week survey of 136 beds a pharmacist examined patient records for adverse reactions and collected reports from nurses and prescribers who had been circulated with guidelines on reporting drug side effects. Thirty eight reactions were detected among 706 patients (5.4%), most (21) from patient records; eight were reported by nurses but only three by prescribers (the rest came from a combination of sources).

We then offered IR£3 to junior doctors for each completed yellow card given to a designated registrar. Within six weeks 150 reports had been received (an incidence of 9.7%). These included two drug associated deaths (streptokinase anaphylaxis, pentamidine pancreatitis) and 27 serious or life threatening reactions—for example, bone marrow suppression, arrhythmias, gastrointestinal haemorrhage, warfarin interaction, pseudomembranous colitis, hepatotoxicity, and the

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Stevens-Johnson syndrome. An independent assessment of a random 25% sample confirmed the reports in over 90% of cases. A survey of the 40 reporting doctors identified "forgot/too busy" (4), unavailability of forms (18), and uncertainty about reporting system (6) as main constraints in reporting. The fee was an incentive for 32. In the six weeks after withdrawal of the fee only 30 reports were received by the registrar.

Comment

Enhanced rates of reporting drug reactions will improve overall drug assessment, reduce bias, and speed earlier detection of serious toxicity with new drugs. Over the past six years our 800 bed hospital (15 000 admissions yearly) has generated almost 0.2% yellow cards per patient. Offering a fee increased the rate of reporting by almost 50-fold, to 9.7%, whereas the pharmacist's survey detected a rate (5.4%) comparable to that in previous studies.¹ Nevertheless, it identified a potential source of additional reports—nurses.

In the fee study we were unable to distinguish the value of reporting to an individual colleague, which we believe to be important, and the contribution of the fee, but the number of reports fell substantially after withdrawal of the fee. Two constraints—availability of yellow cards and lack of information on what to report—should be remediable. To counter the main

constraint, "lack of time/forgetfulness," we can try only to ensure that reporting of reactions becomes an integral part of patient care.

Reporting fees are used in collecting other medical information such as notifiable diseases. We regard the use of a fee to stimulate reporting as an additional tool in drug assessment. Not only did use of the fee greatly enhance the number of reports, producing almost the equivalent to the previous six years' reports within six weeks; it also revealed many serious reactions, including those associated with newer treatments. In the normal course of events these reactions go unreported. We also introduced recently qualified doctors to the reporting system: 48% of the target group (in our case junior doctors) reported reactions over six weeks compared with a figure of 16% over 10 years for the current system.¹ Further evaluation of the use of a reporting fee is warranted.

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Women's knowledge of their HIV antibody state: its effect on their decision whether to continue the pregnancy

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Little is known about the attitudes of women infected with HIV towards pregnancy and whether they decide to continue a pregnancy or terminate it. It is often assumed that a high proportion of women who find that they are infected will terminate their pregnancy because of the risk to the baby, the possible risks to themselves, and their potentially limited life span. The main risk factors for HIV infection among women in Edinburgh are intravenous use of drugs and being the sexual partner of an infected drug user.¹ We studied the decisions made about pregnancy in all women with these risk factors.

Patients, methods, and results

A detailed community based record has been created for all pregnancies in women with the above risk factors whose HIV antibody state is known.^{1,2} Great care is taken to ensure both completeness and confidentiality of this record. We excluded pregnancies that spontaneously aborted, those confirmed before January 1986, and those in women who did not know before 22 weeks or termination whether they were positive for HIV antibodies. We thus studied 163 pregnancies. Standard counselling was provided by several doctors and counsellors.

Induced abortion was common in both the women with and without HIV antibodies (table). Although a higher proportion of the women with HIV antibodies had induced abortions, the difference was not signifi-

cant ($\chi^2_c = 1.22$, $p > 0.20$). Forty four women knew that they were positive for HIV antibodies when they became pregnant, and 21 of these had the pregnancy terminated. HIV infection was the main or only reason for termination in at least nine pregnancies: two of the women had AIDS and two had other illness related to HIV infection. Twenty five women were found to have HIV antibodies during pregnancy and knew the result before 22 weeks. Ten of these women had termination of pregnancy, but nine had previously requested abortion on other grounds and had been tested at that consultation. All 15 women who were found to have HIV antibodies when they attended the antenatal clinic continued their pregnancy. The 38 women who continued their pregnancy despite knowing that they had HIV antibodies in early pregnancy did so because they were currently in good health, desired to have one child, were against abortion, and knew women whose children were well and apparently not infected.

*Outcome of pregnancy in women who were intravenous drug users or sexual partners of drug users positive for HIV antibodies**

	Total No of pregnancies	No (%) of induced abortions	95% Confidence interval (%)
Women positive for HIV antibodies	69	31 (45)	33 to 57
Tested before pregnancy	44	21 (48)	32 to 63
Tested during first pregnancy	25	10 (40)	21 to 61
Women negative for HIV antibodies	94	33 (35)	26 to 46
All women	163	64 (39)	31 to 47

* Spontaneous abortions and women who did not know their antibody state before 22 weeks of pregnancy were excluded.

Comment

The combination of pregnancy and HIV infection can necessitate difficult decisions. The women we studied had a high rate of induced abortion, whether or not they were infected with HIV; the rate was nearly three times that in the city's overall population. Finding during pregnancy that they had HIV anti-