underlined the fact that there are as yet no safe or reliable methods of vaccination and that we have to fall back on education as the only means of prevention of female genital herpes.

In a recent treatment trial[1] on male genital herpes we noted that fresh lesions occasionally arose within a week or more of the first or recurrent attack. These small blisters, often relatively insignificant, were still infectious. We must therefore advise our patients about the danger to an uninfected partner of resuming intercourse too early. It would be better still if the male used a sheath for a week or two after complete healing has apparently occurred—that is, after there have ceased to be any scabs or areas of residual redness. It was also apparent during our trial that fresh, infectious lesions could appear even while patients were using adenine arabinoside applied to the affected area four times daily. There is therefore, unfortunately, little reason to hope that infectivity might be reduced by its use at the onset of recurrences.

It is regrettable to find how seldom patients with genital herpes have been warned that each recurrence is potentially infectious to a fresh sexual partner; moreover, they often resent not having been told this. Thus some behaviour can be modified. In addition, partners should be seen and educated; regular follow-up cytological screening must be instituted. Finally, doctors need to be able to recognise the condition.

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[1] Hilton, A L, *et al*, *British Journal of Venereal Diseases*, 1978, **54**, 50.

SIR,—The increasing incidence of genital herpes and its possible delayed carcinogenic effect suggest that the incidence of cervical carcinoma is likely to rise further in the next decade. Even if effective immunisation or treatment measures become available in the near future, it would be unduly optimistic to expect an immediate fall in the incidence of cervical carcinoma.

Dr J S Cornes (15 April, p 988) rightly advocates annual cervical cytology smears in women known to have contracted genital herpes. Cervical smears have an additional diagnostic value in determining those with cervical herpes infection. This is frequently asymptomatic if concurrent vulval lesions are absent. We would therefore advocate annual cervical cytology in the young single sexually active woman, who is most at risk from genital herpes, and would question the wisdom of those recommendations which would reduce screening cytology smears in these patients.

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SIR,—Your leading article "Genital herpes and cervical carcinoma" (1 April, p 807) illustrates the difficulties of trying to combat genital herpes. Cases in England and Wales total approximately 8000 per year. This is probably an underestimate and should in any event not be disregarded, but we question if the disease justifies consideration of some of the measures discussed in the editorial. The possible use of cytarabine—which is an inhibitor of DNA synthesis—is particularly disturbing. This drug, as well as having toxic side effects, causes accumulation of early antigens in cells infected with type 2 herpes simplex virus.[1 2] Early antigens are implicated in the transformation of cells by other oncogenic DNA viruses, and administration of cytarabine to reduce the amount of infectious virus liberated from lesions in genital herpes seems—at least theoretically—to be potentially hazardous.

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[1] Giraldo, G, *et al*, *International Journal of Cancer*, 1977, **19**, 107.
[2] Macnab, J C M, in preparation.

The postcoital test: What is normal?

SIR,—Congratulations to Mr G T Kovacs and his team (1 April, p 818) on their simple investigation and their conclusions. The phrase "It is commonly accepted that" has been responsible for delaying progress throughout medical history and it is refreshing to see yet another successful challenge by heretics. Wide acceptance of the evidence they have produced could reduce the high incidence of iatrogenic infertility due to functional tubal occlusion in anxious women and impaired performance by deflated "subfertile" males with needlessly shattered ego because they failed to achieve the magic number 10.

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SIR,—A recent contribution from Mr G T Kovacs and others (1 April, p 818) rightly suggests that there appear to be a number of pitfalls associated with the interpretation of postcoital test results.

The authors are not alone in finding that absolute numbers of motile spermatozoa per high-power field do not correlate well with fertility potential, for it has been shown that only when over 20 motile and progressive spermatozoa per high-power field are present is the incidence of pregnancy increased.[1] Indeed, if fewer spermatozoa are being deposited natural coital studies have shown that fewer than one million sperm per ml can achieve the same penetrability of cervical mucus that 10 million/ml can achieve if the majority are very active.[2]

In the infertile, the importance of the postcoital test results is greater when spermatozoa are found to be absent or dead, which could indicate the presence of a cervical factor.[3] This then requires further definitive testing, using perhaps invasion[4] or a sperm cervical mucus contact test[5] to confirm diagnosis. Before these tests are embarked on, however, it is important to take into account that the postcoital test not only reflects activity in the cervical area but abnormalities may be the first manifestation of anatomical or psychosexual disorders in the couple as well as dysfunction in other infertility regions. Valid assessment can only be obtained when results are fully quantified with or without a scoring system[6] and findings correlated with known quality of semen and the hormone status of the ovarian cycle shown in the cervical region by the quality of mucus. Failure to do this may lead to a number of false-negative results and the conclusion that indeed the postcoital test is of little value other than as a means of showing the man's ability to put semen in the right place. Even in this regard your contributors have shown its apparent fallibility.

In a recent study on patients who were attending Chelsea Hospital for Women,[7] in 42% of 231 infertility patients who became pregnant repeated postcoital tests could be considered abnormal with spermatozoa absent or dead. Close examination of the full fertility profile of each couple, however, showed that secondary reasons were potential causes of false-negative results in all but 17 (7·3%). Indeed, the presence of a cervical factor was eventually confirmed by negative invasion tests in only 4 cases (1·7%). There is no reason why in a group of fertile patients such a state of affairs could not also exist.

Results of postcoital tests therefore can yield far more valuable information for an infertile couple's dossier than a demonstration of coital efficiency, but correct interpretation of results requires recognition of all relevant factors.

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[1] Jette, N T, and Glass, R H, *Fertility and Sterility*, 1972, **23**, 29.
[2] Zanartu, J, and Hamblin, E C, *Fertility and Sterility*, 1960, **11**, 248.
[3] Insler, V, Bernstein, D, and Glezerman, M, in *The Uterine Cervix in Reproduction*, ed V Insler and G Bettendorf, p 253. Stuttgart, Thieme, 1977.
[4] Miller, E G, and Kurzrok, R, *American Journal of Obstetrics and Gynaecology*, 1932, **24**, 19.
[5] Kremer, J, and Jager, S, *Fertility and Sterility*, 1976, **27**, 335.
[6] Insler, V, *et al*, *International Journal of Gynaecology and Obstetrics*, 1972, **10**, 223.
[7] Harrison, R F, in *The Uterine Cervix in Reproduction*, ed V Insler and G Bettendorf, p 246. Stuttgart, Thieme, 1977.

SIR,—I read with interest the report by Mr G T Kovacs and others (1 April, p 818). Their assumption on the current fertility of the male partner is not valid—men, like women, can develop secondary infertility.

I have in the last six months seen six couples of proved fertility who were anxious for a further pregnancy, where a poor postcoital test result was obtained (less than five motile spermatozoa per high-power field in ovulatory cervical mucus). All the male partners had subsequent seminal analysis and all showed oligospermia (sperm counts ranging from 180 to 2750/ml). One woman is now pregnant following ligation of her husband's varicocele.

The significance of the findings in the report would have been enhanced if seminal analysis had been correlated with the postcoital test. However, I realise some difficulty may have been encountered in persuading husbands to co-operate.

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Eire

Pathogenesis of necrotising enterocolitis in small babies

SIR,—I read with interest your leading article on necrotising enterocolitis (NE) (21 January, p 132) having recently read a hypothesis for the pathogenesis of enteritis necroticans (EN) in Papua New Guinea by Lawrence and Walker.[1] I wish to propose the hypothesis that