Multivariate relative risk (95% confidence interval) of pelvic endometriosis according to oral contraceptive use, northern Italy*

	Indication for diagnostic surgery			
	Sterility	Pelvic pain	Other†	Total series
Oral contraceptive use				
Never users	1·00 (n = 67)	1·00 (n = 25)	1·00 (n = 131)	1·00
Current users	2·3 (0·1 to 2·1) (n = 2)	2·7 (0·9 to 7·8) (n = 6)	0·7 (0·2 to 1·8) (n = 7)	0·8 (0·3 to 1·6)
Former users	2·2 (1·3 to 3·7) (n = 53)	2·7 (1·4 to 5·2) (n = 21)	1·5 (1·0 to 2·3) (n = 63)	1·9 (1·4 to 2·6)
Duration of use (years):				
< 3	2·1 (1·2 to 3·2) (n = 37)	2·4 (1·2 to 5·0) (n = 18)	1·6 (1.0 to 2·5) (n = 49)	1·9 (1·3 to 2·7)
⩾ 3	1·5 (0·7 to 3·1) (n = 12)	3·2 (1·3 to 7·7) (n = 9)	1.1 (0·6 to 1·9) (n = 21)	1·4 (0–9 to 2·2)
Time since last use (years):				
< 10	2·4 (1·4 to 4·0) (n = 46)	3·1 (1·6 to 6·2) (n = 18)	1·5 (1·0 to 2·4) (n = 42)	2·0 (1·4 to 2·9)
⩾ 10	1·3 (0·4 to 4·0) (n = 7)	0·7 (0·1 to 5·0) (n = 1)	1·6 (0·9 to 3·0) (n = 21)	1·5 (0·9 to 2·7)
Time since first use (years):				
< 15	1·9 (1·2 to 3·2) (n = 50)	2·8 (1·5 to 5·3) (n = 24)	1·4 (0·9 to 2·1) (n = 53)	1·7 (1·3 to 2·4)
⩾ 15	1·4 (0·3 to 5·7) (n = 4)	1·3 (0·2 to 10·0) (n = 1)	1·4 (0·7 to 3·0) (n = 13)	1·4 (0·7 to 2·8)

*Multivariate estimates adjusted for age, education, parity, and in turn the above indicators of oral contraceptive use.
†Including pelvic masses and incidental diagnosis.

contraceptives. Although the results for current users were compatible with a reduced risk, the estimate was not significant, possibly on account of small absolute numbers of cases. It is interesting to note that in our study an increased risk of endometriosis for former users was evident in women in whom diagnosis of the disease was an incidental finding—that is, in the group in which indication bias should have a minor role. Indication and diagnostic bias may, however, have different roles in different diagnostic subgroups, and it is therefore difficult to quantify their role.

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2 Parazzini F, La Vecchia C, Franceschi S, Negri E, Cecchetti G. Risk factors for endometrioid, mucinous and serous benign ovarian cysts. *Int J Epidemiol* 1989;**18**:108-12.
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EDITOR,—M P Vessey and colleagues have shown that current use of oral contraception has a significant protective effect (relative risk 0·4) against endometriosis.[1] The relative risk in women who had stopped taking the pill 25-48 months previously compared with women who had never taken the pill was 1·8. This is inadequate evidence to propose a true worsening of the risk of endometriosis as a rebound effect after the pill is stopped. A more plausible explanation is selection bias: the women in this non-randomised cohort study who chose to take the pill were probably to some extent self selected or selected by their doctor for problems with their periods.

It has long been known that both bleeding and pain are improved by the combined pill; hence women with endometriosis or women likely to develop symptoms of the condition are likely to have been overrepresented in the cohort taking the pill. The endometriosis would generally not become manifest until pill taking stopped, thus producing a higher rate in former users than among those who had never used the pill. If this explanation is true, so that those taking the pill tended to be a higher risk group, the observed beneficial effect of current use of the pill in suppressing symptomatic endometriosis is all the more impressive.

Increased benefit with increasing total duration of use of the pill was not shown in the whole population, but this included both current and former users. Have the authors examined whether, among current users who have never taken a break from the method, increasing duration of use further improves the beneficial effect?

I agree with Eric J Thomas that the main indication for treatment is cyclical pelvic pain and dyspareunia.[2] Because endometriosis is chronic and relapsing, after initial medical or surgical treatment it must be suppressed long term. The combined pill has now been shown to be suitable for that purpose, long term.[1] I also agree that these data "support the hypothesis that the incidence of the disease is related to exposure to menstruation." I have, therefore, for some time recommended maintenance treatment with the "tricycle regimen" first introduced for a different purpose by Loudon *et al*, in which three or four packets of the pill (which should logically be a relatively oestrogen deficient and progestogen dominant formulation) are taken consecutively before each pill free interval.[3] Although pill bleeds are hormone withdrawal bleeds rather than menses, it seems logical to arrange that they are infrequent, occurring four or five rather than 13 times a year, to minimise bleeding into persistent endometrial deposits. A study in which this regimen was used might well show an even greater protective effect.

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2 Thomas EJ. Endometriosis. *BMJ* 1993;**306**:158-9. (16 January.)
3 Loudon NB, Foxwell M, Potts DM, Guild AL, Short RV. Acceptability of an oral contraceptive that reduces the frequency of menstruation: the tricycle pill regimen. *British Journal of Family Planning* 1977;**2**:487-90.

Increasing patients' knowledge of secondary contraception

EDITOR,—D R Bromham and R S V Cartmill report the knowledge and use of secondary contraception among patients requesting termination of pregnancy at a fertility control unit.[1] They found that many patients had switched from using the pill to condoms for contraception, hoping to decrease any risk of contracting AIDS. A considerable number of the women said that a condom had leaked and some that one had split. The authors concluded that an increasing proportion of unplanned pregnancies were due to condom failure. They also found that many women were unaware of the availability of the postcoital pill—popularly and perhaps misleadingly called the morning after pill, although it is recommended for use up to 72 hours after any risk.

This exactly reflects my experience in seeing a large number of women who have sought a termination of pregnancy in Liverpool. I wrote to two large manufacturers of condoms, pointed out my findings, and suggested that it would be helpful if they included in their product's leaflet information about the postcoital pill, how to obtain it, and in what circumstances to use it. This was in July 1989, and by November I had received considered replies from both manufacturers.

One manufacturer wrote: "To incorporate such wording as you suggest within our instructions would imply that the product has a higher failure rate than is actually the case and cast doubt upon the advisability of its use." The other, having said that most "failures" (its inverted commas) are really related to the users and not the product, went on to say: "I find it hard to envisage how such advice could be given without causing potential damage to our own product's reputation." Manufacturers competing in the market may well have a problem, but surely a form of words could be agreed and, with government help, made mandatory for inclusion in all manufacturers' information sheets.

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1 Bromham DR, Cartmill RSV. Knowledge and use of secondary contraception among patients requesting termination of pregnancy. *BMJ* 1993;**306**:556-7. (27 February.)

Re-emergence of tuberculosis

EDITOR,—John M Watson's editorial and M Kennedy and colleagues' letter draw attention to the danger of multidrug resistant tuberculosis, particularly in HIV positive patients.[1 2] We have completed a bacteriological survey of tuberculosis in south east England from 1984 to 1991.[3] This survey included a study of the prevalence of drug resistance in different ethnic groups. The table summarises the findings, which may prove useful for comparative purposes in future surveys. The overall distribution of resistance was not signi-

Prevalence of tuberculosis due to drug resistant strains of Mycobacterium tuberculosis in south east England, 1984-91

	Ethnic origin of patients		
Type of resistance	European (n = 4594)	Indian subcontinent (n = 4099)	Other (n = 625)
1 Drug:			
Isoniazid	60	119	16
Streptomycin	30	72	21
Pyrazinamide	15	12	2
Rifampicin	3	5	1
Ethambutol	1		
2 Drugs:			
Isoniazid and streptomycin	16	83	22
Isoniazid and rifampicin	4	4	4
Other	1	7	
3 Drugs	1	28	1
4 Drugs	1	14	5
5 Drugs	1	3	1
6 Drugs		1	
Total (%) resistant	133 (2·9)	348 (8·5)	73* (11·7)

*35 African, 31 from Far East, seven other.