Short reports

The immediate effects of the pill safety scare on usage of combined oral contraceptives in north east England

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In October 1995, following advice from the Committee on Safety of Medicines, the Department of Health issued a press release concerning the use of seven brands of combined oral contraceptive pills. All pills carry an increased risk of venous thromboembolic events,^{1,2} though the absolute risk is low and considerably less than the health risks associated with an unwanted pregnancy or abortion. Recent studies^{3,4,5} suggest that newer pills, containing desogestrel or gestodene, are associated with higher rates of thrombosis.

Doctors were recommended to review all women using the seven brands and advise them to change to lower risk types. Patients who were intolerant of the older types and without other risk factors for venous thrombosis might continue taking them, but on an informed basis. Through the media, women were advised not to stop using these brands, but to obtain medical advice, preferably before their current contraceptive cycle ended.

Changes in oral contraceptive prescribing following the publicity suggest changes in the number of pill users.

Data

In the Northern and Yorkshire region, about 3600 general practitioners serve a population of 6.8 million, including 1.36 million women aged 16-44. Details of the oral contraceptive items they prescribed during 1994-95 were extracted from data supplied by the Prescription Pricing Authority. Quantities prescribed were expressed in terms of 28-day cycles.

Combined oral contraceptives products containing 35 µg or less of the oestrogen, ethinyl-oestradiol, were divided into two types: seven brands of newer (third generation) pills containing the progestogens, desogestrel or gestodene (Mercilon, Marvelon, Minulet, Femodene, Femodene ED, Triadene, Tri-minulet), and second generation pills with other progestogen content (levonorgestrel, norethisterone, or norgestimate). Pills containing 50 µg ethinyl-oestradiol, mainly the post coital contraceptive PC4, were excluded from analysis, as were pills containing the oestrogen, mestranol (less than 0.2% of combined oral contraceptives).

Results

PRESCRIBING BEFORE OCTOBER 1995

During the period from January 1994 to September 1995, around 250 000 combined oral contraceptive items were prescribed each quarter, though there was a slight downward trend (table 1). The market share for third-generation pills increased from 50.2% to 52.4%. Average duration of an item remained steady at 4.65 cycles, with nearly 50% of items for exactly 6 monthly cycles.

Before October 1995, with stable usage and prescribing patterns and an average prescription length of 4.65 cycles, the estimated number of users was 1.43 ($4.65 \times 4/13$) times the quarterly items (table 1).

PRESCRIBING FOR OCTOBER-DECEMBER 1995

An estimated 23 000 prescriptions for third generation pills relate to the pre-publicity

Table 1 Combined oral contraceptives prescribed by general practitioners in the Northern and Yorkshire region, and the estimated numbers of users prior to October 1995

Quarter ending	Oral contraceptive items prescribed			Estimated pill users*		
	Total	2nd generation (%)	3rd generation (%)	Total	2nd generation	3rd generation
March 94	252 244	125 630 (49.8)	126 614 (50.2)	360 709	179 651	181 058
June 94	249 060	122 162 (49.0)	126 898 (51.0)	356 156	174 692	181 464
September 94	248 950	121 144 (48.7)	127 806 (51.3)	355 999	173 236	182 763
December 94	243 292	115 748 (47.6)	127 544 (52.4)	347 908	165 520	182 388
March 95	248 745	116 048 (46.7)	132 697 (53.3)	355 705	165 948	189 757
September 95	238 659	113 524 (47.6)	125 135 (52.4)	341 282	162 339	178 943
December 95	275 566	226 712 (82.3)	48 854 (17.7)	-	-	-

* Estimation only possible for the period prior to October 1995, with regular issuing of repeat prescriptions and stable quantities prescribed per item.

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period 1–17 October 1995. Also, continuing users of second-generation pills would have required 114 000 items during the quarter. The remaining 26 000 third-generation and 113 000 second-generation items are attributable to prescribing, in the period following the health announcement, for 180 000 women who had previously used third-generation pills. However, only about 54% of women who continued using the reviewed brands would have needed a new prescription before the end of December. This suggests around 48 000 ($=26\,000/0.54$) women continuing to use third generation pills after doctor consultation. Prescribing for 19,000 previous users (10.5%, or 5.6% of total users) is unaccounted for—they may have continued to use previously dispensed supplies of the reviewed brands without yet consulting their doctors, or they may be using alternative contraceptive methods or have ceased contraception.

Comment

The abrupt change in contraceptive advice for over half the women taking the pill has had a

substantial immediate impact on the types of pills prescribed, and there are preliminary indications that up to 5% of users may have stopped using effective contraception, albeit temporarily. Consequently, overall health risks may have risen in the short term. To realise the long term health benefits of any decreased thrombosis risk, the overwhelming majority of previous pill users must adopt reliable alternative contraception.

Anticipating public perceptions of risk, and consequential behavioural changes is difficult. Would the same information presented as “lower risk associated with older brands” have had the same outcome?

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