

the treponemicidal level is achieved and maintained there is no evidence that higher levels are more effective against the treponeme.

Fishman<sup>4</sup> showed, in the experimental animal, that treatment with probenecid in addition to penicillin in equimolecular amounts increased the level of penicillin in the brain by X1.9. This was accompanied by a rather greater increase of X2.9 in plasma, so that the ratio of brain to plasma penicillin decreased from 5.4% to 3.5%.

Probenecid with penicillin or amoxicillin<sup>5</sup> should be as effective in the treatment of neurosyphilis, providing treponemicidal levels are produced and maintained, as the more complicated intravenous regimens. The matter deserves further examination.

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### Colposcopy in Teenagers

The incidence of pre-invasive squamous carcinoma of the cervix

### Age distribution against cervical biopsy

Age	No	Cervical biopsy results				
		Normal or inflammatory	HPV histology	CIN 1	CIN 2	CIN 3
15	1	—	—	1	—	—
16	12	2	5	3	2	—
17	15	2	5	6	1	1
18	32	5	14	9	4	—
19	36	11	15	9	1	—
Totals	96	20	39	28	8	1

among younger women is increasing steadily in England and Wales.<sup>1,2</sup> It has been suggested that these lesions progress rapidly to invasive cancer in younger women.<sup>3</sup> We screened, cytologically, colposcopically and histologically, 96 teenagers with genital warts for cervical intraepithelial neoplasia, whose mean age was 17.9 (range 15 to 19 years). Seventy (73%) of them were smokers and 69 (72%) of them used an oral contraceptive pill; only 15 (15.6%) used barrier methods. The majority of them were having regular sexual intercourse from the age of 16 and continued to have multiple sexual partners. Histological evidence of cervical intraepithelial neoplasia was found in 37 (38.5%) patients (table).

Epidemiological studies indicate that principal risk factors for cervical neoplasia are early engagement in sexual intercourse, multiple partners<sup>4</sup> and cigarette smoking.<sup>5</sup> Recent data have suggested that long term use of oral contraceptive increases the risk of cervical cancer.<sup>6</sup> It has also been established that a close link exists between cervical intraepithelial neoplasia and human papilloma virus.<sup>7</sup>

The detection of a high incidence of cervical intraepithelial neoplasia among teenagers is rather alarming. Our study has shown that the majority of these teenagers have multiple risk factors for cervical neoplasia. We feel strongly that a colposcopic examination and regular follow-up is mandatory in these groups of patients. Our results support the argument that cervical screening should start from an earlier age than currently recommended.

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## MATTERS ARISING

### Genital warts and the need for screening

Griffiths *et al* reviewed 100 consecutive women with genital warts to determine the prevalence of associated lower genital tract infection.<sup>1</sup> He concludes that screening all women with genital warts for other sexually transmitted diseases, whilst ignoring a similar risk in women without warts, may be inappropriate. In an attempt to assess the situation for ourselves, we looked at 127 consecutive women and 145 consecutive men, presenting dur-