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Management of menorrhagia: an audit of practices in the Anglia menorrhagia education study

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Menorrhagia is an important healthcare problem for women.¹ In primary care menorrhagia is a considerable burden on resources and may ultimately lead to referral and surgery.^{1, 2} There is a gap between research and practice, with best evidence not uniformly applied. The Anglia menorrhagia education study, a randomised controlled trial of an educational package delivered in 100 general practices in East Anglia between November 1995 and March 1996, evaluated whether education could change doctors' management.³ Practices reported individual cases, and behaviour of practices receiving education was compared with that in control practices. There were differences in the numbers reported from practices, raising concerns that underreporting might impact on the result. The publication of an *Effective Health Care* bulletin on menorrhagia coinciding with the start of the study was also a potential confounder.⁴ Furthermore, the reported data allowed comparison only between the two study groups and did not allow assessment of previous behaviour. It was therefore felt necessary to audit practice before and after the Anglia study intervention to validate its methods and findings, and to adjust for differences in practices, changes over time, and the effect of confounders.

Subjects, methods, and results

Four audit standards were set with local medical audit advisory groups: all women with menorrhagia under the age of 40 should receive tranexamic acid before hospital referral; no women should receive norethist-

erone as first line treatment for menorrhagia; all women with menorrhagia should receive tranexamic acid or a non-steroidal anti-inflammatory drug as first line treatment; and women under 40 with menorrhagia should be referred only if appropriate medical treatment had been given. Notes of women aged 15-45 who first attended the year before or after the trial started were identified and audited by the study team. Data analysis calculated odds ratios and 95% confidence intervals with a random effects logistic regression model.⁵ This model compared the odds of referral or treatment in the intervention group of general practices (n=27) with the control group (n=25), adjusting for pre-intervention behaviour and the cluster randomised design of the original Anglia study.³

The results are presented as the odds of compliance with standards and absolute prescribing and referral rates from 662 cases of menorrhagia (figure). A woman was almost five times as likely to receive tranexamic acid in practices that received intervention as part of compliance with the standard (odds ratio 4.75; 1.42 to 12.1). These women were only half as likely to receive norethisterone as first line treatment (0.62; 0.38 to 0.92), with women nearly twice as likely to receive appropriate first line treatment (1.81; 1.24 to 2.53). Women referred from practices that received intervention were more likely to be given appropriate first line medication before referral (2.87; 1.14 to 6.15). Absolute data show a halving of referrals (0.537; 0.34 to 0.81), an increase in prescriptions of

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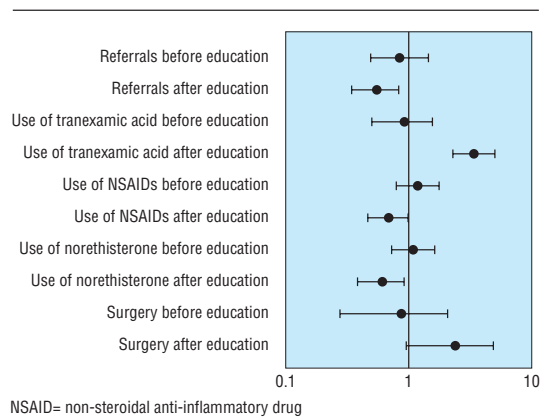
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Odds ratios for various aspects of menorrhagia management both before and after educational intervention. Bars represent 95% confidence intervals

tranexamic acid (3.36; 2.21 to 4.96), and a reduction in norethisterone treatment (0.67; 0.46 to 0.95) for cases of menorrhagia. Non-steroidal anti-inflammatory drugs were prescribed slightly less commonly in groups receiving intervention (0.61; 0.38 to 0.90). The odds of hysterectomy in the education group were increased by 2.33 (0.94 to 4.87). There were no demographic differences between practices.

Comment

The data show a positive change in behaviour among doctors as a result of education. The results also validate previously reported randomised controlled

trial data.³ There were no before and after differences in control practices, indicating that external confounders had no effect. The trend towards an increased chance of hysterectomy in intervention groups may be because they had already received appropriate first line treatment. These women may proceed to more appropriate surgery as a result of this intervention.

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Violence by clients towards female prostitutes in different work settings: questionnaire survey

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Violence by clients towards prostitutes has seldom been the focus of public and academic interest, yet it is a major health issue.^{1 2} Concern has mostly focused on the potential of prostitutes to transmit sexual infections, notably HIV, to their clients and subsequently partners.³ Features of female prostitution that have a direct impact on the health of prostitutes but not the health of others have therefore tended to be overlooked. The scant research that is available on violence by clients shows that prostitutes who work outdoors in particular routinely confront clients who are verbally, sexually, and physically violent towards them.^{4 5} We report on the prevalence of violence by clients against female prostitutes working either outdoors or indoors in three major British cities.

Methods and results

During 1999 three female researchers (SC, MB, and Catherine Benso) contacted 240 female prostitutes; 115 worked outdoors (40 in Leeds, 75 in Glasgow)

and 125 worked indoors in saunas or flats (50 in Leeds, 75 in Edinburgh). We designed a structured questionnaire using previously validated measures to record personal characteristics, working patterns, drug and alcohol use (in the past six months), type and frequency of violence by clients (ever or in the past six months), and levels of attack reported to police. We contacted 156 (65%) prostitutes in their place of work and 84 (35%) through drop-in centres. We used SPSS to test for significance, and multivariate binary logistic regression analysis to identify variables most strongly associated with violence experienced ever or in the past six months.

The table shows that prostitutes working outdoors were younger, involved in prostitution at an earlier age, reported more illegal drug use, and experienced significantly more violence from their clients than those working indoors (81% (93 of 115) v 48% (60 of 125), $\chi^2 = 29.2$, $df = 1$, $P < 0.0001$). Prostitutes working outdoors most frequently reported being slapped, punched, or kicked, whereas prostitutes working