

Four of these 12 patients had no predisposing factors such as obesity, alcohol or diabetes and three of these four were in the group with normal cholesterol levels. Therefore, testing only those with cholesterol levels above 6.5 mM or with risk factors for hypertriglyceridaemia would have missed three patients, that is 21% of those with hypertriglyceridaemia.

Therefore, if triglyceride is included in the practice screening programme all patients should be screened.

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## Fatal pulmonary embolus in a patient treated with Marvelon

Sir,

We would like to report the case of a 16-year-old girl who developed pulmonary emboli and subsequently died while receiving the oral contraceptive Marvelon (desogestrel 150 µg, ethinyloestradiol 30 µg; Organon). She was referred with a possible deep venous thrombosis by a family practitioner. Two weeks previously she had suffered a sudden syncopal episode, and had thereafter been breathless, with intermittent sharp central chest pain, which was worse on inspiration. Her symptoms had not responded to antibacterial treatment. The day before admission her left calf had become swollen, hot and painful. She had previously been perfectly well, a non-smoker with no relevant family history. She had been taking Marvelon for two months, but had stopped when the antibacterial drugs were prescribed for her dyspnoea.

On examination, she was breathless at rest and cyanosed, with a tachycardia (110

beats per minute) and a normal blood pressure (110/70 mmHg). There was clinical evidence of right ventricular strain, but her chest was clear. There were signs of a left deep venous thrombosis, accompanied by tenderness in the left iliofemoral area. An electrocardiogram showed changes suggestive of pulmonary embolus, and arterial gases revealed hypoxia and hypocapnia. Chest radiography showed dilated proximal pulmonary arteries with abrupt cut off. A diagnosis of pulmonary emboli and iliofemoral vein thrombosis was made.

The girl was treated immediately with intravenous heparin according to the Llandough regimen.<sup>1</sup> A perfusion lung scan showed massive perfusion defects occupying almost all of the right lung and the apex and midzone of the left lung. The opinion from the regional cardiothoracic centre was that neither thrombolytic therapy nor embolectomy were appropriate because of the delay between the onset of symptoms and presentation. Her condition deteriorated suddenly and she died 72 hours after admission. Post-mortem examination confirmed death to be due to pulmonary emboli and left iliofemoral vein thrombosis.

We have been unable to find any published cases of pulmonary embolus associated with Marvelon, which came into common usage in the UK in 1982. The Committee on Safety of Medicines has received seven notifications (which include one death), and two of deep venous thrombosis (Committee on Safety of Medicines, personal communication).

The risk of thromboembolism associated with oral contraceptive agents is reduced but far from abolished in low-dose oestrogen preparations,<sup>2,3</sup> and their effects on haemostasis are well described, the oestrogen component causing the thrombogenic tendency by increasing levels of factors II, VII, VIII, IX and X, fibrinogen and soluble fibrin, and decreasing levels of antithrombin III.<sup>4</sup> Recently, however, it has been stressed that with certain low-dose preparations, the thrombogenic effects of the oestrogen may be countered by the ability of the accompanying progestogen, for example levonorgestrel, to increase fibrinolytic activity, decrease platelet activity, and possibly to increase antithrombin III levels.<sup>5</sup> Desogestrel does not have this ability<sup>5</sup> and in fact causes a small but statistically significant decrease in antithrombin III levels.<sup>6</sup>

While there are no data comparing the incidence of thromboembolic events associated with Marvelon and other oral contraceptive drugs, there are theoretical reasons to suggest that this newer drug is

likely to carry a similar risk to other low-dose oestrogen preparations.

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## Appointment system or open surgery?

Sir,

In their article on patients' satisfaction with access to general practitioners Allen and colleagues (*April Journal*, p.163) suggest that 'a mixed system may well be the ideal'.

We operate such a system in our practice which has a population of 8900 and an annual consultation rate of 2.9 per patient in 1987. We book 12 patients at 10-minute intervals from the start of surgery with a 30-minute gap after the first hour; 'extras' or patients who just turn up are seen during this time or after the last booked patient. We usually see between 18 and 24 patients in morning surgery which lasts between three and three and a half hours. Each patient is seen for a mean of nine minutes while mean waiting times are eight minutes for patients who booked appointments and 34 minutes for those who did not. I would commend this system to any practice with patients who will always just turn up or where the 'extras' are often the most disadvantaged patients who need adequate consultation time. This method allows such time to be given without delaying or penalizing those that do book appointments. It also seems to reduce the doctors' perception of being hurried, and works well if you have the stamina for a three and a half hour surgery.

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