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# Surgery and the pill

After major surgery the relative risk of overt, clinical, deep venous thrombosis in women taking oestrogen containing combined oral contraceptives is about two, as compared with non-users.[1 2] This estimate is approximate for many reasons: the risk appeared higher in early studies,[3] whereas the increasing use of formulations containing less than 50 μg oestrogen implies that the real risk of all forms of venous thromboembolism may have come down.[4]

Metabolic studies show numerous changes in factors associated with blood coagulation and fibrinolysis, whose overall effect, even with our current pills, would be expected to predispose to deep vein thrombosis.[1 2] Anaesthesia and the combined oral contraceptives have additive effects on at least one important factor (both reduce the activity of antithrombin III).[5] Even if the relative risk with 30-35 μg oestrogen pills is now less than two the attributable risk if women continued to take them during and after major surgery would be high, because venous thromboembolism after major surgery is one of the commonest serious complications of the combined oral contraceptive.[1 2] The risk is greatest after major orthopaedic, abdominal, and cancer surgery or any surgery that entails giving a hypotensive anaesthetic.

On p 516 there is another risk to which attention is drawn—namely, unwanted pregnancy when the oral contraceptive pill is discontinued before surgery. This is a risk that needs to be clearly explained to the woman and her partner, and the couple should be helped to organise alternative means of contraception. (Many couples who have become used to the convenience of the combined oral contraceptive for several years have no notion of how easy it is to conceive unless barrier methods are used with obsessional care.) Steps must also be taken to ensure that an early pregnancy is not present before proceeding with elective anaesthesia and surgery.

To reduce this risk of pregnancy further three questions need to be answered: For which procedures is it unnecessary to discontinue the combined pill? Do the restrictions apply to the progestogen only pill, or other oestrogen free preparations? and How long before and after surgery should oral contraceptives be avoided?

The risk of deep venous thrombosis after minor surgery, such as most dental procedures and laparoscopy, with a short duration of anaesthesia and full mobilisation the same day, is vanishingly small. Hence any extra risk associated with the combined oral contraceptive would be more than outweighed by the risk of pregnancy. The only exception would be minor procedures to the legs themselves—notably varicose vein surgery and injection sclerotherapy. Metabolic studies have generally failed to show any important effects of progestogens in promoting intravascular coagulation[6]; thus the progestogen only pill need not be avoided over the time of elective surgery, however major. Indeed, the injectable progestogens such as Depo-Provera might well be offered as perioperative "cover" to women on the waiting list for a major procedure.

Finally, the time of avoidance of the combined oral contraceptive should be reduced to the minimum commensurate with safety. Published epidemiological studies suggest that the excess risk of deep venous thrombosis is unrelated to duration of use and reverts to normal within less than one month.[7] Some changes in the coagulation and fibrinolytic systems have been detected about six weeks after discontinuing oestrogens, but others—such as the decreased activity of antithrombin III—have reverted to normal within four weeks.[8] Avoiding combined oral contraceptives for six weeks preoperatively may be the counsel of perfection, but four weeks is probably more realistic. Postoperatively most agree that the combined oral contraceptive may be restarted two weeks after the patient is fully mobile.[9 10]

Taking all factors into consideration, I believe that the following—which is essentially that which will appear in the forthcoming issue number 10 of the *British National Formulary*, para 7.3.1—represents good policy: oestrogen containing contraceptives should be discontinued (and adequate alternative contraceptive arrangements made) four weeks before major elective surgery; they should normally be started again at the first menses occurring at least two weeks after the procedure. When discontinuation is not possible—for example, after trauma or if, by oversight, a patient admitted for an elective procedure is still taking an oestrogen containing oral contraceptive—prophylactic low dose subcutaneous heparin should be considered.[5] These recommendations do not apply to minor surgery with short duration of anaesthesia and early mobilisation—for example, laparoscopic sterilisation or tooth extraction—or to women taking oestrogen free contraceptives.

It is important to plan ahead: not only must this matter be discussed in the outpatient department but also women must be given at least a month's warning of their admission or (preferably) a definite date from the clinic. Other risk factors must receive due weight, notably obesity and a family history of venous thrombosis. The latter implies that the patient should be investigated preoperatively for any factors that might either promote thrombosis or impair fibrinolysis. It is also helpful to instruct women to restart the combined oral

contraceptive on the first day of their postoperative menses since this provides immediate contraception.[11]

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# Setting standards in general practice

The Royal College of General Practitioners launched its "quality initiative" in 1983,[1] and the council of the college has now proposed radical measures that will transform the initiative from a voluntary exercise undertaken by keen college members into a strategy for the whole of general practice (29 June, p 1981).[2] But the consultation document, *Towards Quality in General Practice*, makes two challengeable assumptions: firstly, that "quality of care" can be described and assessed; and, secondly, that quality of care is synonymous with quality of doctor.[3]

Quality of care has been measured in terms of structures (personnel, buildings, equipment), processes (the consultation, prescribing, screening, what we do), and outcome (changes in individual and community health). Measures of outcome are difficult to obtain, but until valid indicators are developed judgments about quality of care can be made only with reservation. Computerisation, both of family practitioner committees and of practices, is one way of obtaining data for producing measures of outcome. The college says in the report that the computerisation of general practice is essential, but it must emphasise the benefit from such investment and seek earmarked funding in the form of grants to individual practices.

The second assumption—that improving the quality of general practitioners by asking "What sort of doctor?" will result in raised standards of care—leads to the controversial proposals for the membership examination being an entry standard for new principals in National Health Service general practice, "accreditation" of new principals by continuous assessment after two years of "higher training," and "reaccreditation" at intervals, also by continuous peer assessment, linked to remuneration by a new "performance sensitive" contract. These are radical proposals, yet the continuing public criticism of the stereotyped general practitioner ("You feel you're wasting your time talking to him"; "Before you've finished saying 'I've got a sore throat' you've got a prescription and you're out"[4]) and the concern of college examiners at the standard of some candidates mean that there is clearly a need to examine the issues of quality and standards.

The setting of professional standards is an accepted function of an academic body, and provided its methods are both valid and widely acceptable to doctors and patients any attempt to raise standards of patient care should be welcomed. Although the membership examination has been carefully developed and validated[5-7] it is not without its critics.[8] A better method of checking on the standard of vocational training might be the forms of continuous assessment that the college is developing,[3] combined perhaps with a shorter "part 1" examination.[9] The membership examination might then be left as a voluntary indicator of achievement, which patients and colleagues will increasingly expect.

It is surprising that a document that looks towards 1990 makes no mention of the Declaration of Alma-Ata, with its patient centred goal of "health for all by 2000."[10] Perhaps that highlights the doctor centred approach of this document —"What sort of doctor?" not "What sort of health?"[11] Primary health care demands participation among doctors, nurses, social workers, lay community workers, and patients. Patients are mentioned in the college document but only as a potential influence on the service who should receive more information.

The concluding call for additional government resources is at best inopportune—it sits uncomfortably next to the statement: "Personal satisfaction is derived from doing the job of general practice well—it is fostered by the nature of the doctor patient relationship, and is encouraged by the intellectual stimulus and satisfaction of comparing one's own clinical experiences with those of colleagues."

Even so, this document deserves careful reading by all general practitioners and will doubtless generate wide debate beyond the college. While some of the proposals may be seen as too extreme, the underlying principles of objective inquiry into structures, processes, and outcome followed by standard setting by consensus and local peer assessment merit serious consideration.

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# Molecular genetics of acute intermittent porphyria

Acute intermittent porphyria is the most important of the porphyria diseases and is clinically distinguishable from the others by the dominance of gastrointestinal and neuropsychiatric symptoms and the absence of skin photosensitivity. The most prominent symptoms are abdominal pain, vomiting, and constipation, with less commonly paralysis or paresis and psychological abnormalities of various types. The main signs of the disease are tachycardia —a useful index of activity—and hypertension, which is present in over half of patients. All of these clinical mani-