

genomic revolution is, however, a nettle that the NHS must grasp. If it fails to take a more active role in the development, evaluation, and clinical application of advances in genomics and work with those doing the research then development will be patchy and ad hoc, and opportunities will be missed. As a new report from the Institute for Public Policy Research points out, the

very fact that there is uncertainty about what genomic medicine will deliver in terms of improved health care makes it all the more urgent that the NHS should develop a coherent strategy.<sup>6</sup> It must anticipate and respond to innovation, not block it.

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## Emergency contraception: is it time to change method?

*A variety of methods offers choice and increased access*

It is nearly 25 years since Yuzpe published his work on a combination of estrogen and progestogen for emergency contraception.<sup>1</sup> Overall this method prevents three out of four pregnancies that would have occurred if no treatment had been used<sup>2</sup> and has an excellent safety record. Now a group from the World Health Organisation has confirmed that levonorgestrel alone is effective and has fewer side effects than combined oestrogen-progestogen.<sup>3</sup> Should we now be changing to levonorgestrel for emergency contraception?

The combined oestrogen-progestogen method produces nausea and vomiting, but otherwise has a good safety record. The World Health Organisation has stated that there are no contraindications,<sup>4</sup> though the latest guidelines from the Faculty of Family Planning and Reproductive Health Care of the Royal College of Obstetricians and Gynaecologists still regard a history of thromboembolism as a relative contraindication and migraine at presentation, with a history of migraine with aura, an absolute contraindication.<sup>5</sup>

Unfortunately, since Yuzpe's original publication no further work has been published on either timing or dosage. Work has, however, been carried out on alternatives. Mifepristone was found to be very effective but at a dose of 600 mg disrupted the cycle considerably.<sup>6,7</sup> Further dose finding studies<sup>8</sup> have found lower doses to be effective, but mifepristone is not widely available and not likely to be in the near future because of its association with induced abortion. There was a short flirt with using danazol but it was found to be ineffective.<sup>6</sup>

The new data on levonorgestrel is the most exciting recent development.<sup>3</sup> The study showed a negative correlation between the interval from unprotected intercourse to treatment and effectiveness and greater effectiveness for levonorgestrel over the oestrogen-progestogen method. The quoted effectiveness for oestrogen-progestogen was, however, much lower than that in other studies.<sup>3</sup> This was surprising but may be partially accounted for by pregnancies that were present before treatment, a disproportionate number of which were in the oestrogen-progestogen arm. Nevertheless, levonorgestrel seems at least as effective

as oestrogen-progestogen and causes fewer side effects. As a result some have called for rapid wholesale change over to levonorgestrel.<sup>9</sup> However there are various factors to consider before we all jump.

In the United Kingdom there is no licensed levonorgestrel only product, and, as many consultations for emergency contraception are with nurses, who can only issue drugs via protocols—which take time to develop—a change too soon will adversely affect the service provided to clients. It also means that women need to take two doses of 25 tablets each of the equivalent progestogen only pill—which is inconvenient and may reduce compliance; also, the bioavailability of 50 tablets may not be the same as that of two. Doctors issuing the tablets will need to discuss how to take them and the fact that the drug is not licensed. Regulating authorities should place licensing a levonorgestrel only product high on their list of priorities.

A more important issue—regardless of the drug used—is that the sooner the treatment is taken the greater the effectiveness. This has implications for all service providers. General practitioners will not welcome more night calls, accident and emergency departments are already stretched and are not ideal venues to discuss sexual health, and family planning clinics are not open all hours.

An option would be to make the treatments available through pharmacies. In 1995 the college and faculty issued a joint statement requesting that hormonal emergency contraceptives should be reclassified from prescription only to pharmacist status.<sup>10</sup> Experience in the United States shows that pharmacy only distribution works well.<sup>11</sup> Alternatively, emergency contraception can be given in advance to those who may need it; this option is effective and does not lead to overuse.<sup>12</sup> If emergency contraception should become more readily available through pharmacies it must be clearly labelled with advice on where to obtain more effective long term contraception, and, in the United Kingdom, it should still be available free through existing channels.

Will oestrogen-progestogen become obsolete as soon as levonorgestrel is licenced? No. Most countries have no form of licensed preparation for emergency

contraception but do have combined pills and in many they are available over the counter. Progestogen only pills are far less available and often more expensive. If effectiveness is paramount an intrauterine device is still the best option, yet it is not routinely offered, even in the United Kingdom. What is needed is education and information, for both health workers and women, of all the possible options so that the best can be chosen.

Emergency contraception will continue to develop. The Population Council is doing further work on the long established oestrogen-progestogen method to try to reduce the side effects through limiting the dose or substituting a different progestogen; the WHO is looking at single dose levonorgestrel and further mifepris-

tone regimens; and Family Health International is investigating routine use of antiemetics in the oestrogen-progestogen regimen.

We should welcome new methods of emergency contraception, especially if they are more effective and acceptable, but let us not abandon all the older methods without making sure that all who need treatment can access something. The greater the choice of regimens and venues to obtain treatment the greater the chance of those in need obtaining it.

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## Benign prostatic hyperplasia

### *Medical treatment provides short term symptom relief and reduces complications*

The traditional goals of treating benign prostatic hyperplasia—symptomatic relief and improved urinary flow rate—have been challenged by a recent study.<sup>1</sup> This study, by McConnell et al, suggests that medical treatment with the 5 $\alpha$  reductase inhibitor finasteride can prevent the longer term complications associated with benign prostatic hyperplasia such as acute urinary retention and the need for surgical intervention. This is one of several studies published recently that help us understand more about the risk factors and management of acute urinary retention.

Jacobsen et al reported on the risk factors associated with acute urinary retention in a community study of 2115 men.<sup>2</sup> They found a direct relation between the risk of developing retention and lower urinary tract symptoms, depressed peak urinary flow rate, enlarged prostate, and old age. This evidence suggests a progressive nature to the disease, which in the past has been lacking and which should be addressed if new goals of management are to be defined. More recently Pickard et al reviewed the surgical outcome in 3966 men undergoing prostatectomy, of whom 1242 presented with acute retention.<sup>3</sup> They found that men with acute retention were at higher risk of developing complications and of dying than men who underwent elective prostatectomy. These differences were only partly accounted for by renal impairment, age, and comorbidity.

Given that we can now identify the risk factors leading to acute retention, and that this condition leads to an increased incidence of postoperative complications, the outcomes from the study of McConnell et al raise the question whether all men with benign prostatic hyperplasia should be treated with finasteride to prevent long term complications.

McConnell et al's study in 3040 men with moderate to severe symptoms and an enlarged prostate compared finasteride with placebo for four years in a randomised double blind trial.<sup>1</sup> Symptomatic relief and improved flow rates were significantly better in the finasteride group, as expected. However, acute urinary retention developed in 99 men (7%) in the placebo group compared with 42 (3%) in the finasteride group (reduction in risk 57%). Similarly 152 men in the placebo group (10%) and 69 in the finasteride group (5%) underwent surgery for benign prostatic hyperplasia (reduction in risk 55%). The differences between the arms of the study were significant 4 months into the study. In terms of numbers needed to treat, this study shows that 15 men would need to be treated for 4 years to prevent one event (surgery or acute retention). These benefits, however, are additional to the impact on symptoms and flow rates in these men in both the short and the long term.

We have good evidence that medical treatment for benign prostatic hyperplasia can be effective, and the meta-analysis by Boyle et al shows that men with