and community controls we published both sets of results.

The component of the study that looked at acute myocardial infarction was not powerful enough for analysis of subgroups (except perhaps the community controls). In the British dataset for the component that looked at venous thromboembolic disease there were no differences in the estimates of risk between the hospital and community controls.

Table 1—Use of oral contraceptives by controls in component of transnational study looking at venous thromboembolic disease

	No current use	Third generation pills	Second generation pills
Hospital controls	470	103	180
Community controls	558	146	222

Given that for this component the ratio of use of third to second generation oral contraceptives was 0.57 among the hospital and 0.66 among the community controls (table 1), the results for the acute myocardial infarction component may be due either to random variation resulting from the small sample size or to Berkson's bias.⁴

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Cascade system for getting urgent information to doctors

CSM should use email and the Internet

EDITOR,—The failure of the first class postal service and the Department of Health's "fax cascade" to prevent another drug scare (the recent scare over the safety of third generation contraceptive pills¹) should prompt the Committee on Safety of Medicines to consider an effective alternative: electronic mail or the Internet. One of the problems described by the committee was its inability to provide the necessary information to general practitioners quickly enough.

All that general practitioners needed was information on which drugs were involved, why the decision was taken, and the recommended action. Since over 90% of practices have a computer and 55% have a desktop computer² a route exists for the transfer of information. The information needed could have been made available virtually instantaneously if an electronic pathway to these practice computers had been developed.

The roughly 10 000 practices for which email or the Internet could have been used would have needed a modem (£150), appropriate software (email £50 or web browser £50), and training (up to £50).³ So for less than £2.5m the "impossibility of

dissemination" could have been handled smoothly. The cost of the package could be added to the £45m currently spent on primary care computing (personal communication, NHS Executive) and be deemed to attract 100% reimbursement under existing regulations in the red book (the statement of fees and allowances for general practitioners). This one off cost and the £100 per practice per month necessary if a commercial company is used to give access to the Internet might pay for themselves the next time a drug is withdrawn from the market or a scientific journal publishes a new league table of pharmacological lethality.

Email and the Internet would also allow many other sources of information to become available to practices⁴ (and potentially to patients). There is no shortage of recommendations, guidelines, and protocols waiting to cascade on to general practitioners' desks. Rapid and reliable availability would be one way of moving towards Stephen Dorrell's stated aim for practising clinicians: "They need ready access to research results—an effectiveness index on tap, if you like."

What about the 5-8% of practices that do not have a computer when the next "drug scare" hits the press? Perhaps some of the money saved by not posting letters to the 10 000 that do and the time saved by ministers and senior doctors could be used to activate a parallel system more effective than that currently operating.

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The system works

EDITOR,—We are pleased, given the problems with communications about the contraceptive pill,¹ to note the success of the government's cascade system in informing doctors about the fresh evidence on treatments for head lice.² As the BMA made clear at the time of the controversy surrounding the government's warning about the pill, our concern was solely about the government's problems in contacting general practitioners before patients received the news through the media.

It was unfortunate that certain elements in the media chose to misrepresent the BMA's views and imply that the association believed that the controversy over the pill had been created by the government's desire to save money. As our press office made clear to the media once such a suggestion had been made, this was not the association's view. We have always understood that the government's decision was based on the advice of the Committee on Safety of Medicines—a body that has the utmost confidence of the medical profession.

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Publishing information about patients

Obtaining consent to publication may be unethical in some cases

EDITOR,—At its last meeting the International Committee of Medical Journal Editors revised its guidelines regarding the protection of patients' rights to privacy in manuscripts submitted to biomedical journals. It changed its policy from one stating that anonymity should be maintained to one stating that information that might identify a patient should not be published unless it is essential for scientific purposes and the patient has given written informed consent for publication.^{1,2} Gaining informed consent for this purpose requires that the patient be shown the manuscript to be published. This raises ethical and legal problems.

In good clinical practice informed consent is an integral part of medical treatment. Doctors provide information at the patient's request or because the patient needs it to make valid decisions about treatment. The content of the information given to the patient, and the manner in which it is given, depends on individual circumstances and needs. But informed consent for publication is different because the process of informing the patient and the information given are governed not by the patient's requests and needs but by the requirements of scientific publishing as part of research. Case reports are written in a short, precise, and objective manner; use medical terminology; and are often in a foreign language (for example, English)—this is not the type of information that many patients request.

In psychiatry and psychotherapy in particular, this kind of information can be a risk to the patient's mental health. Case reports are published precisely because of problematic or unsolved elements in the medical treatment of severely ill patients. But many psychiatric patients are vulnerable and may not tolerate the information required for them to be able to give valid informed consent for publication; this makes it unethical to confront them with a scientific manuscript about their case. Furthermore, psychiatric patients may be incompetent to give valid informed consent. In Germany legal guardians or courts cannot give consent for publication because scientific publication, like non-therapeutic research, is generally not in the patient's personal interest.^{3,4}

In practice, important case reports in psychiatry and psychotherapy will have to remain unpublished under the new guidelines. Unfortunately, the medical editors do not seem to have considered this. No proposals have been made to improve methods of anonymising case reports, but such methods should be tested empirically before the existing policy of scientific publication is changed completely.

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GMC's guidelines should be followed before information is put on Internet

EDITOR,—We were perturbed by the last paragraph of Mark Pallen's article on the world wide web, which described how the department of orthopaedics at Queen's University of Belfast

(<http://brigit.os.qub.ac.uk/local.html>) has had to restrict its database of x ray films for legal and ethical reasons related to the use of patient data.¹ We are currently developing a neurological teaching programme on the Internet (<http://medweb.bham.ac.uk/clin-neuro.html>), which uses, among other multimedia modalities, video material of patients (including one of us (GW)). We are not aware of any other group on the web using such material. This is clearly much more contentious than the use of x ray films, and we are acutely aware of the issues involved, given recent articles regarding the consent of patients.^{3,4} We do not think that there is a problem provided that such material has been gathered prospectively and fully informed consent has been obtained from the patient.

Our local research ethics committee has approved our consent form, which is available to interested parties at <http://medweb.bham.ac.uk/http/depts/clin-neuro/teaching/consent.html>. However, given the tremendous interest in our site (some 300 users from over 30 countries download 3000 files every month), we clearly need to seek guidance from other bodies, and we are currently seeking the advice of the Royal College of Physicians, the General Medical Council, and the Medical Defence Union.

As patients and clinicians, we believe that the tremendous educational benefits of the Internet are a huge resource for all of us and that the confidentiality issues should not deter other groups from developing similar material provided that the General Medical Council's recent guidelines are followed⁵—that is, prospectively collected material should be used, with the patient's fully informed consent when he or she is identifiable; and any material collected retrospectively should be anonymised if the patient is identifiable in any way.

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Confidentiality of information on NHS network must be addressed

EDITOR,—It is disappointing that a number of doctors seem to find the BMA's approach to the confidentiality of computerised health records impractical, out of date, Luddite, or worse: the association believes that concerns must be addressed before confidential personal health information can be entrusted to the NHS network. The medical ethics committee is as anxious as every practising doctor must be to ensure that patients reap the full benefits that the new computer technology can bring to health care. The benefits of instant access to records in an emergency have probably been overstated, but few people would claim that there are no such benefits. Increasing the speed with which information is transmitted between health care professionals can only improve patients' care. Are these benefits so important,

though, that we should ignore the virtual certainty that some delicate personal details will fall into unauthorised hands, as has been suggested?

It is always uncomfortable to review the full meaning of any principle to which one is committed. It is even more uncomfortable when such a review shows that in health care we often tolerate practices of which our patients are unaware and to which they would almost certainly object. Perhaps to some people the fact that paper records are usually kept in one geographical location and are often difficult to access is a redeeming feature of such records. Computer records have no such inefficiencies.

The BMA has commissioned its own computer security expert (Ross Anderson) to make proposals, and these have been published.¹ It is good to know that they will soon be subjected to vigorous scrutiny at an international conference, since they have already been denigrated as unnecessary and impractical. I understand that the Department of Health's latest draft guidance makes no provision for a patient to refuse consent to the release of personal health information. Its emphasis on a "legal duty of confidentiality" cleverly disguises the fact that the civil law has never been tested in the health care field. It would be a risky and expensive route for an aggrieved patient to travel.

Doctors in Britain now have the opportunity to lead the world in producing effective security systems for health information—indeed, for personal privacy as a whole. It would be sad if a few doctors, dazzled by the excitement of the new technology, persuaded the profession to lose its nerve at such a critical time.

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Algorithm to detect left ventricular dysfunction after myocardial infarction

Low specificity of algorithm would lead to extensive overtreatment

EDITOR,—Several large studies have shown that angiotensin converting enzyme inhibitors reduce mortality in patients with left ventricular dysfunction after acute myocardial infarction.^{1,2} However, left ventricular dysfunction after acute myocardial infarction is difficult to detect on clinical examination, and McMurray and Rankin devised a clinical algorithm to help doctors.³ This algorithm emphasises the importance of a Q wave anterior infarction, previous acute myocardial infarction, and clinical evidence of left ventricular failure, but its accuracy has not been assessed in clinical practice.

We have assessed the algorithm in a retrospective study of 75 survivors of a recent acute myocardial infarction aged 40 to 88. The patients had no history of congestive heart failure. The clinical history (previous acute myocardial infarction) and results of electrocardiography (site of acute myocardial infarction and presence of Q waves) and laboratory tests were recorded within the first two days of admission. On day 2 after acute myocardial infarction an experienced independent clinician assessed whether the patients had left ventricular dysfunction on the basis of results of physical examination and radiological findings. The left ventricular ejection fraction was measured by transthoracic echocardiography or radionuclide ventriculography, or both, within five days of the acute myocardial infarction and was dichotomised as either $\leq 40\%$ or $> 40\%$. The ideal cut off point remains uncertain, but this was the cut off used

in the survival and ventricular enlargement trial,¹ which seems a reasonable guide for clinical practice.

Thirty of our 75 patients had an anterior Q wave myocardial infarction, 20 had a history of acute myocardial infarction, and 16 had clinical evidence of left ventricular failure. The left ventricular ejection fraction was determined in 67 patients (by echocardiography in 57 and by radionuclide ventriculography in 34). On the basis of McMurray and Rankin's algorithm 50 of the 67 patients would have been recommended an angiotensin converting enzyme inhibitor, whereas only 29 had a left ventricular ejection fraction $\leq 40\%$. Hence the clinical algorithm was highly sensitive (sensitivity 83%) but poorly specific (specificity 34%) in our patients.

McMurray and Rankin's algorithm was devised to select patients after acute myocardial infarction for treatment with an angiotensin converting enzyme inhibitor. The sensitivity of the algorithm (its ability to identify patients with left ventricular dysfunction) is probably more important than its specificity as overtreating these patients with angiotensin converting enzyme inhibitors is preferable to undertreating them: both the studies of left ventricular dysfunction and the survival and ventricular enlargement trial have shown that these drugs reduce episodes of reinfarction and unstable angina. With such a low specificity, however, the algorithm would lead to extensive overtreatment with angiotensin converting enzyme inhibitors.

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Authors' reply

EDITOR,—Because it has several flaws, Dawood Darbar and colleagues' study does not invalidate the algorithm proposed by two of us.

Firstly, we have doubts about the authors' gold standard for the diagnosis of left ventricular dysfunction. They calculated left ventricular ejection fraction by echocardiography in some patients and by radionuclide ventriculography in others, whereas radionuclide techniques alone were used in the survival and ventricular enlargement trial. There is only moderate agreement between these techniques for the identification of left ventricular dysfunction.¹ Furthermore, Darbar and colleagues used a cut off ejection fraction of 40% without stating the normal range and without any evidence that it corresponds to that used in centres taking part in the survival and ventricular enlargement trial.²

Secondly, their work is based on the assumption that only patients who have objective left ventricular dysfunction should be targeted to receive angiotensin converting enzyme inhibitors. The