collected prospectively. After straightforward vaginal hysterectomy we may not need to keep patients in hospital routinely for nearly a week and women may not need to be off work for as long as is traditional. The introduction of new techniques of treating dysfunctional bleeding may therefore usefully provoke a critical re-evaluation of established alternatives.

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Understanding Marfan's syndrome

SIR,—True understanding of the molecular pathology underlying Marfan's syndrome is increasing rapidly through the discovery of mutations within the fibrillin gene. To date four mutations have been reported within the international consortium assembled to study this disease (K Kainulainen et al, unpublished results; H C Dietz, personal communication). All but the original mutation seem to be unique to the family or person concerned. To discover these mutations about 65 patients have been studied. Other mutations will be discovered by studying the 30% of this large gene that has not yet been sequenced.

The Marfan Association (UK) is compiling a phenotype-genotype map of this important gene; as fibrillin is strongly expressed in skin the association is obtaining a small skin sample from one member of each family known to be affected by the syndrome in the United Kingdom. If a mutation is found a test is available for diagnosis and prenatal diagnosis in that family. We would be happy to hear of any family or person with Marfan's syndrome wishing to be included, as rapid construction of the phenotype-genotype map will also enable us to provide a diagnostic and prognostic test for the 25% of patients with Marfan's syndrome who are affected as a result of a new mutation.

We are happy to provide up to date information on diagnosis and the management of patients suspected of having the condition. Treatment is available for all aspects of this progressive disease, and each patient should be referred for ophthalmic examination, annual echocardiography, and genetic counselling to maximise the great preventive potential in the disease.

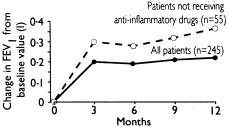
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Bronchodilator treatment in asthma: continuous or on demand?

SIR,—Constant P van Schayck and colleagues found a decrease in forced expiratory volume in one second (FEV_1) in patients with asthma receiving regular bronchodilator treatment compared with those receiving treatment on demand. In an assessment of salmeterol we measured FEV_1



Change in FEV_1 during one year's treatment with salbutamol 200 μg in 245 patients with asthma

in 499 patients over 12 months. Not surprisingly, the 254 patients taking salmeterol showed an increase rather than a decrease in FEV $_1$. In addition, the 245 control patients taking salbutamol 200 µg also showed a rise (2·22 l before the study and 2·44 l at 12 months). Most of these patients, however, were receiving glucocorticosteroid treatment, which may have contributed to the result. We therefore examined the 55 patients treated with regular salbutamol who were not receiving anti-inflammatory drugs before randomisation; these also showed an increase in FEV $_1$ (figure).

The difference between van Schayck and colleagues' results and our results may relate to the effect of stopping anti-inflammatory drugs. There were no apparent differences in the number of patients given anti-inflammatory treatment between the two groups studied by van Schayck and colleagues, although the data are not given. The patients treated regularly, however, had a lower FEV₁ initially and more symptoms and, therefore, more severe asthma. Stopping treatment with anti-inflammatory drugs may have had a more deleterious effect in this group than the other. Indeed, the drop out rate was significantly higher in the patients treated regularly, which would be consistent with their disease being worse. In our study the drop out rate was lower in the patients not withdrawn from anti-inflammatory treatment (only eight of 63 patients compared with 27 of 113 in van Schayck and colleagues' paper).

In conclusion, we did not find a fall in FEV_1 during 12 months' treatment in asthmatic patients including those who had not previously received anti-inflammatory treatment. Thus our data do not support the suggestion that bronchodilators cause the disease to worsen.

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 Van Schayck CP, Dompeling E, van Herwaarden CLA, Folgering H, Verbeek ALM, van der Hoogen HJM, et al. Bronchodilator treatment in moderate asthma or chronic bronchitis: continuous or on demand? A randomised controlled study. BMJ 1991; 303:1426-31. (7 December.)

"Do not resuscitate" orders

SIR,—Emma J Aarons and Nicholas J Beeching, who carried out a survey of "Do not resuscitate" orders, deserve thanks for making us aware of an unsatisfactory aspect of hospital practice. They highlight the discrepancy between the number of times an order was recorded in the medical notes and the number of times it was recorded in the nursing records and call for more communication with ward nurses. The question of how to make this more likely remains unanswered.

In 1987 I spent four weeks in Stanford University's otorhinolaryngology department. Every morning during the business round doctors would review the nursing orders of the previous day and write them down again in the nursing section of the patients' notes. Nurses and doctors shared the same notes, which facilitated communication and improved patients' care.

Nurses do not often read medical records held separately, and simply telling the ward sister or charge nurse does not guarantee that information will be passed on to the next shift of nurses. The traditional practice of keeping separate nursing and medical records should be re-evaluated in the light of this survey. Inappropriate calls to the crash team will continue so long as nurses remain unaware of "Do not resuscitate" orders in separate medical records.

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1 Aarons EJ, Beeching NJ. Survey of "Do not resuscitate" orders in a district general hospital. BMJ 1991;303:1504-6. (14 December.)

SIR,—The parliamentary ombudsman's committee has recently demanded that doctors should involve relatives in the decision not to resuscitate and that policies for this should be drawn up by all health authorities. Emma J Aarons and Nicholas J Beeching's statement that "decisions on resuscitation should not be made unilaterally" (by medical staff) is in accordance with the MPs' demands but is fundamentally wrong.²

There are three rationales for issuing a "Do not resuscitate" order: cardiopulmonary resuscitation is of no medical benefit; the current quality of life is poor; and the quality of life after cardiopulmonary resuscitation is likely to be poor. In relation to the first rationale, "physicians have no obligation to provide, and patients and families have no right to demand, medical treatment that is of no demonstrable benefit." Therefore, in those circumstances in which cardiopulmonary resuscitation will be of no benefit (most acute medical conditions barring conditions related to ischaemic heart disease) it is justified for a unilateral decision not to resuscitate to be made and documented in the notes.

The introduction of formal "Do not resuscitate" policies or of legislation relating to decisions not to resuscitate will not necessarily increase patients' autonomy or ensure that cardiopulmonary resuscitation is used more appropriately. In America, where "Do not resuscitate" policies are formal and are backed by legislation in many states, Kamer et al found that only 13-16% of acutely ill patients who died without being given cardiopulmonary resuscitation were consulted about the decision to withhold it.4 Applebaum et al reported attempts at cardiopulmonary resuscitation in patients in whom rigor mortis had already set in-hardly an appropriate use of cardiopulmonary resuscitation, but one precipitated by formal, legally backed "Do not resuscitate" policies.

That guidelines for withholding cardiopulmonary resuscitation are required is not disputed. Ideally, patients or relatives should be consulted if cardiopulmonary resuscitation is to be withheld on grounds of poor quality of life, but the American approach to achieving this should be avoided at all costs. I await with interest the national guidance on this sensitive and difficult issue demanded by MPs from the chief medical officer.

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