James O'Brien and colleagues' approach was too simplistic.¹

The premise that primary treatment of the symptoms of stress, urge, and mixed incontinence is simple is unfounded. In controlled trials the objective cure rate after pelvic floor exercise in women with genuine stress incontinence is low²; similarly, in women with detrusor instability bladder retraining is associated with a high long term relapse rate.³

In O'Brien and colleagues' study patients were treated on the basis of symptoms alone and no attempt was made to diagnose the cause of incontinence. As the correlation between urinary symptoms and urodynamic diagnosis is poor⁴ many patients will have been incorrectly treated, resulting in an apparent reduction in the efficacy of treatment. It is not surprising that patients with mixed symptoms had the poorest outcome, with only half reporting symptomatic improvement.

Patients who remain incontinent will become disillusioned and may seek no further medical advice, thinking that nothing can be done to help them. It is already difficult to convince patients that most of them can be cured, or their incontinence can at least be improved, by appropriate investigation and management.

The nature and duration of follow up were inadequate; no objective measures of severity of leakage were used, and no assessment of the results of treatment was continued beyond 12 weeks.

We believe that, with few exceptions (notably elderly people), incontinent patients require some basic investigation, often including urodynamic assessment, before treatment. Outcome should be carefully monitored and assessed objectively whenever possible.

B G WISE D ABBOTT
C J KELLEHER J HAKEN
G BURTON L D CARDOZO

Department of Urodynamics,
King's College Hospital,
London SE5 9RS

- O'Brien J, Austin M, Sethi P, O'Boyle P. Urinary incontinence: prevalence, need for treatment, and effectiveness of intervention by nurse. *BMJ* 1991;303:1308-12. (23 November.)
- Haken J, Benness C, Cutner A, Cardozo LD. A randomised trial of vaginal cones and pelvic floor exercises in the management of genuine stress incontinence. *Neurology and Urodynamics* 1991;10:393-4.
- Holmes DM, Stone AR, Bary PR, Richards CJ, Stephenson TP. Bladder training 3 years on. *Br J Urol* 1983;55:660-4.
- Jarvis G. An assessment of urodynamic examination in incontinent women. *Br J Obstet Gynaecol* 1980;87:893-6.

Potassium concentrations in irradiated blood

SIR,—G Dinning and colleagues report increased concentrations of potassium in irradiated blood.¹ The Royal Liverpool University Hospital receives 65% of its blood as SAG-M blood; this blood has virtually all its plasma removed and replaced with an isotonic nutrient solution (saline, adenine, glucose, mannitol).

We measured potassium concentrations in SAG-M blood after irradiation (with 15 Gy). The concentrations were higher in SAG-M blood than whole blood throughout storage (table). After irradiation they increased in a fashion similar to concentrations in whole blood and plasma reduced blood,¹ values as high as those in non-irradiated

Potassium concentrations (mmol/l) in irradiated whole blood and SAG-M blood

	Days after collection			
	9	25	33	35
Whole blood	11	15.3	16	27
Irradiated whole blood	19.5	27.3	32.5	38.6
SAG-M blood	20	30	38	60.5
Irradiated SAG-M blood	30.7	52.5	62	72

blood at its expiry date (35 days' storage) being attained after 15 days' storage. We therefore recommend that any blood, but particularly SAG-M blood, irradiated at this hospital should be as fresh as possible and should be administered as soon after irradiation as practicable, and we do not store irradiated blood for more than 48 hours.

Dinning and colleagues suggest that unused irradiated blood may be cross matched for other patients. We do not recommend this policy for patients who would not normally receive irradiated blood. Luban and Ness outline theoretical risks of such a policy in view of changes to DNA structure and repair induced by irradiation and the possibility of producing sister chromatid exchanges, all of which may predispose to primary or secondary malignancy or chromosomal damage.²

JENNIFER DUGUID
JENNY CUNNINGHAM
NORMAN PENDER

Royal Liverpool University Hospital,
Liverpool L7 8XP

- Dinning G, Doughty RW, Reid MM, Lloyd HL. Potassium concentrations in irradiated blood. *BMJ* 1991;303:1110. (2 November.)
- Luban NLG, Ness PM. Irradiation of blood products. Indications and guidelines. *Comment. Transfusion* 1985;25:301-3.

The health of the nation

SIR,—With regard to the many letters published recently concerning *The Health of the Nation*, may I add that the role of early intervention concerning emotional stress disorder in young children is not mentioned in recent documents on child surveillance that I have read, although the Royal College of General Practitioners states that emotional aspects should always be borne in mind.¹

Major (and minor) adult psychiatric illness is often costly to treat and entails considerable suffering. Studies show connections between childhood psychological problems and subsequent illness. Research shows the considerable value, clinically and financially, of surveillance for emotional disorder in early childhood. The annual research review of the International Association of Child Psychology and Psychiatry (of which I am southwest chair) describes some of these studies.² For example, an esteemed unit in New York described early intervention in infantile autism as successful. (Lack of eye contact between mother and infant was one diagnostic item.) Studies from Scotland indicate that the value of postnatal counselling by a health visitor diminishes the need for antidepressants.³

Recent work by Nicol in Leicester (and Kolvin in Newcastle) indicates the value of different degrees of parent, group, and family therapy.^{2,4} They screened a population and offered treatment for children and mothers with emotional problems rather than treating patients presenting themselves.

Richman's work at the Hospital for Sick Children, Great Ormond Street, shows that a large percentage of children with symptoms at the age of 3 continue to have them at the age of 8.⁵ All children thus "do not grow out of" enuresis, sleep disorders, etc.

I have used a mother-baby interaction scale (valid from birth to 2 years) which could be incorporated in a surveillance document. Often parents are not aware of emotional problems in themselves and their children. At surveillance, problems can be picked up about which parents may not have approached their medical practitioners.^{6,8}

Incidentally, follow up studies show the upset caused by mother-baby separation and long term effects on the physiological and immune systems.⁹

DE WET VORSTER

Child and Family Consultation Service,
Mount Gould Hospital,
Plymouth PL4 7QD

- Royal College of General Practitioners. *Handbook of preventative care for preschool children*. 2nd ed. London: RCGP, 1988.
- McGuire J, Earls F. Prevention of psychiatric disorders in early childhood. *J Child Psychol Psychiatry* 1991;32:129-53.
- Holden JM, Sagovsky R, Cox JL. Counselling in a general practice setting: a controlled study of health visitor intervention in the treatment of postnatal depression. *BMJ* 1989;298:223-6.
- Nicol AR. Controlled comparison of three interventions for mother and toddler problems. *J R Soc Med* 1984;77:488-91.
- Richman H. Disorders in pre-school children. In: Rutter M, Hersov L, eds. *Child and adolescent psychiatry*. Oxford: Blackwell, 1985:336-50.
- Vorster D. Infant psychiatry developments. *Bulletin of the Royal College of Psychiatrists* 1987;iii:160-1.
- Vorster D. Holding as a technique in family therapy. *Journal of Family Therapy* 1990;2:189-94.
- Vorster D. Touching, holding and parenting. *Journal of Reproduction and Infant Psychology* 1990;8:272-3.
- Brazelton B. Touch the foundation of experience. In: *Clinical infant reports*. Madison, Connecticut: International Universities Press, 1990.

Endometrial resection or abdominal hysterectomy in menorrhagia?

SIR,—In the past obstetric and gynaecological innovations have been enthusiastically embraced and have become accepted practice without proper evaluation. Disentangling the advantages and disadvantages, as with cervical cerclage, can be extremely laborious. Michael J Gannon and colleagues have made a creditable comparison between endometrial resection and abdominal hysterectomy for dysfunctional uterine bleeding.¹ More than 4000 women have now been treated by endometrial resection, and the authors' honest reporting of the problems that they have experienced with the new method is welcome; several serious, including some fatal, complications have occurred at other centres.

The costings given in the paper do not include costs for either pelvic ultrasonography or repeat endometrial ablation. In terms of relieving symptoms the failure rate of 16% for endometrial resection is high compared with that for hysterectomy.

The authors do not explain why contraceptive advice was based on the presence or absence of cyclical bleeding. Does this correlate with tubal patency? The pregnancy that occurred must be regarded as profoundly disturbing. Endometrial resection is, after all, intended to induce amenorrhoea, and an early pregnancy might therefore be unsuspected. The gestational age at which this pregnancy was detected is not stated. Though the psychological morbidity associated with early termination of unwanted pregnancy is low, a woman who has a second trimester termination after endometrial ablation might well suffer from conflicting feelings. With increasing gestation any consequences of placenta accreta presumably worsen. The postoperative progress after endometrial resection has been carefully assessed, but practice and advice after hysterectomy seem to be based on tradition.

The suggestion that vaginal hysterectomy might be a better comparison for endometrial resection prompted a review of 23 recent vaginal hysterectomies at Prince Philip Hospital, Llanelli, and West Wales General Hospital, Carmarthen. In addition to dysfunctional bleeding pathological findings included adenomyosis, fibroids, cervical intraepithelial neoplasia, and atypical hyperplasia. The operating time was 20-57 (median 30) minutes and the hospital stay 4-9 (median 5) days. At postoperative review four women had pelvic pain or vault tenderness and seven had vault granulation.

This prompted a review of routine practice. A 20 minute technique for vaginal hysterectomy has been described,² as has early discharge after this operation.³ Data corresponding to the criteria used to assess endometrial resection (the duration of bleeding or serosanguinous discharge and subjective assessment of recovery time) will be

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.

THOMAS BLOOMFIELD

Prince Philip Hospital,
Llanelli,
Dyfed SA14 8QF

- 1 Gannon MJ, Holt EM, Fairbank J, Fitzgerald M, Milne MA, Crystal AM, *et al*. A randomised trial comparing endometrial resection and abdominal hysterectomy for the treatment of menorrhagia. *BMJ* 1991;303:1362-4. (30 November.)
- 2 Joel-Cohen S. *Abdominal and vaginal hysterectomy*. London: Heinemann, 1972.
- 3 Reiner JJ. Early discharge after vaginal hysterectomy. *Obstet Gynaecol* 1988;71:416-8.

Understanding Marfan's syndrome

SIR,—True understanding of the molecular pathology underlying Marfan's syndrome¹ 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.¹ 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.

ANNE H CHILD

Marfan Association (UK),
Department of Cardiological Sciences,
St George's Hospital Medical School,
London SW17 0RE

- 1 Young I. Understanding Marfan's syndrome. *BMJ* 1991;303:1414-5. (7 December.)
- 2 Dietz HC, Cutting GR, Pyritz RE, Maslem CL, Sakai LY, Corson GM. Marfan's syndrome caused by a recurrent de novo missense mutation in the fibrillin gene. *Nature* 1991;352:337-9.

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 (FEV₁) in patients with asthma receiving regular bronchodilator treatment compared with those receiving treatment on demand.¹ In an assessment of salmeterol we measured FEV₁

Change in FEV₁ 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 FEV₁. 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 FEV₁ (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 FEV₁ 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.

C J HILTON
R W FULLER

Glaxo Group Research,
Greenford,
Middlesex UB6 0HE

- 1 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.¹ 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.

JYOTIN C PANDIT

Ashford Hospital,
Ashford,
Middlesex TW15 4AA

- 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.¹ 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.³ 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."⁴ 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.⁵ 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.⁶

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.

N J DUDLEY

Department of Geriatric Medicine,
St Luke's Hospital,
Bradford BD5 0NA

- 1 Grinstead P. MPs demand guidelines on life-saving bids. *Hospital Doctor* 1991;C11(43):2.
- 2 Aarons EJ, Beeching NJ. Survey of "Do not resuscitate" orders in a district general hospital. *BMJ* 1991;303:1504-6. (14 December.)
- 3 Tomlinson T, Brody H. Ethics and communication in do-not-resuscitate orders. *N Engl J Med* 1988;318:43-6.
- 4 Kamer RS, Dieck EM, McClung JA, White PA, Sivak SL. Effect of New York state's do-not-resuscitate legislation on in-hospital cardiopulmonary resuscitation practice. *Am J Med* 1990;88:108-11.
- 5 Applebaum GE, King JE, Finucane TE. The outcome of CPR initiated in nursing homes. *J Am Geriatr Soc* 1990;38:197-200.