We suggest that the information offered by Drs O'Brien and Burnham would have been more appropriately placed in the section on unreviewed reports.

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- 3 Emmanuel JH, Montgomery RD. Gastric ulcer and the antiarthritic drugs. Postgrad Med J 1971;47:227-32.

SIR,—A report last year by Drs J D O'Brien and W R Burnham (7 December, p 1609) described the findings of an inquiry into the association of treatment with non-steroidal anti-inflammatory drugs with gastrointestinal bleeding. Fifty three (26%) out of a total of 204 patients seen at the hospital for gastrointestinal bleeding were found to have been receiving non-steroidal anti-inflammatory drugs before admission. The authors suggested that "non-steroidal anti-inflammatory drugs may be associated with peptic ulceration and its complications" on the basis of the expected rate in patients presenting with a bleeding peptic ulcer during treatment, and that ketoprofen is more frequently associated with bleeding than expected.

Ketoprofen has now been in use for 13 years; both extensive unpublished company documentation and the recently published review of adverse reactions reported to the CSM (3 May, p 1190) do not support these conclusions. Such discrepancies can easily be explained by the inherent weaknesses of a retrospective study which lacked controls and embraced only a small number of subjects. The survey was also a byproduct of another study with a totally unrelated objective. The history of immediate past treatment is not known and could have largely contributed to the events.

The authors did concede the possibility that their local prescribing patterns may have differed from the regional figures used in their calculation. A detailed review of sales figures for the catchment area of Oldchurch Hospital shows that this was indeed the case, the prescribing of ketoprofen being nearly three times higher in this area than in the North East Thames region as a whole.

The report by Drs O'Brien and Burnham was followed by others (4 January, p 56) citing these authors' conclusions. The development of guidelines<sup>1</sup> for the rational prescribing of non-steroidal anti-inflammatory drugs must be well founded if misleading conclusions on the risk: benefit ratio of such drugs for the patient are to be avoided.

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1 St John Collier D, Pain JA, Blower AL, Armstrong CP, Ng J, Batey R. Ulcer perforation in the elderly and non-steroidal anti-inflammatory drugs. *Lancet* 1986;ii:971.

### **IVF** update

SIR,—Dr Tessa Richards's timely leading article (3 May, p 1156) highlights some of the important issues in infertility treatment but I think makes some misleading conclusions.

Although there is only one in vitro fertilisation unit operated by the NHS, there are several research units such as our own operating within, and partly funded by, the NHS. Dr Richards quotes an estimated running cost of £100 000 per year to run a unit treating five patients a week, which gives a cost per patient of £400. Taken in comparison with the cost of other treatments for non-life threatening conditions, such as surgery for varicose veins, hernia, etc, this is hardly "high cost." Doubling the throughput to 10 cases per week would certainly not double the running costs and would further reduce the cost per treatment cycle.

The success rate is described as disappointingly low. Although the pregnancy rate per treatment cycle is an important index for analysis of a unit's performance, it should be remembered that most units offer the patient three or more cycles of treatment. Retrospective cumulative data show that couples having five attempts at in vitro fertilisation have a 50% chance of pregnancy, and if eight attempts are made that chance increases to 70% (Kovacs GT, Rogers PAW, 4th World Congress on In Vitro Fertilisation, Melbourne, 1985). While one hopes to see pregnancy rates improved, these cumulative figures may represent a more meaningful estimate for the patient and render the results equal to, if not superior to, the results of microsurgery for tubal disease

The conclusion that the NHS is unlikely to be spurred into action because infertility is not fatal fails to recognise the profound psychological and emotional damage caused by the disability of infertility, and the long term effects such as depression, alcoholism, and mental breakdown.

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# Reducing the use of laboratory tests

SIR,—The recently published strategy from Cardiff (Dr F G R Fowkes and others, 29 March, p 883) designed to reduce the number of laboratory tests by discrimination has emphasised the value of consultation between consumers and providers. However, the practical difficulties in extending such dialogues throughout our district general hospital, where we were faced with an urgent need to cut down the out of hours haematology workload, required a different approach.

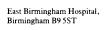
In common with the hospital patient turnover as measured by the totals of deaths and discharges, the demands on our haematology emergency services have risen steadily year by year. In 1985 these had reached the point where the medical laboratory scientific officers declared themselves unable to maintain an adequate service. A critical review of the requests over the previous months showed that an appreciable proportion did not meet the existing criterion: a test essential for the immediate management of the patient. Though there was an obvious case for reminding the medical staff of this requirement we knew that past appeals for greater discrimination, even with direct intervention by the consultant haematologists, caused only transient responses.

The following plan for an immediate but potentially longlasting reduction was devised. Based on the earlier analysis we drew up a list of haematological investigations together with the clinical conditions that might reasonably require them as well as other conditions for which the tests were not believed to be essential for immediate patient care.

All emergency haematology requests were vetted during the next month using these guidelines. As only minor modifications were found to be necessary the list was submitted to the medical staff for approval. It was made clear that the list was for the use of house officers, who in the case of problems not covered by the list or in special circumstances had the option of seeking the advice of the senior doctor covering them, who would be able to make the request. This was designed to meet the response of the joint coordinating committee of the UK protection and defence organisations to us that written guidelines should be discretionary rather than mandatory. With the approval of our medical staff committee the list was published.

The numbers of requests fell significantly during the initial month of vetting (May) (see figure). Without further direct intervention the level rose subsequently but only as high as the figures recorded two years earlier. It is interesting that the rate of rise as calculated for the 16 months before the intervention ( $12 \cdot 8$  per month) was virtually the same as for the 12 months following ( $13 \cdot 2$  per month). This suggests that the still increasing patient turnover is responsible. If this is true and the present attempts of our administration to decrease number of patients treated are successful the rising curve should at least flatten.

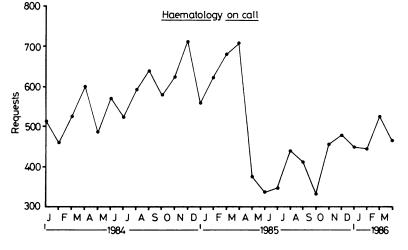
> O H B Gyde M J Leyland



# Reaction to food additives

SIR,—Mr Geoffrey Cannon cites two papers as showing that azo dyes are toxic to an unknown number of children (10 May, p 1275). Actually neither paper does this.

The Royal College of Physicians-British Nutrition Foundation report reminds us that adverse reactions to tartrazine do occur, usually in people sensitive to aspirin.<sup>1</sup> The report by Egger *et al* on 76



Numbers of haematology tests requested out of hours from 1984 to April 1986.

selected hyperactive children said that 21 were cured by withdrawing a range of foods and additives; 55 were unchanged or only partly improved.<sup>2</sup> Seventy nine per cent of those tested reacted to a food additive but none reacted to these alone: each child had an average of 4<sup>3</sup> demonstrated allergies to basic foods such as milk or oranges. They were not compared with matched atopic children who were not overactive. Thirty seven of them had adverse psychosocial factors in the family, and 32 had asthma, eczema, or hay fever that improved on the same exclusion diets that reduced their behavioural problems.

A child cured of asthma can run around; one cured of hay fever feels well enough to play; one whose eczema has remitted becomes more accepted as a playmate by other children. Play, I suggest, is necessary for all sorts of reasons, ranging from the need to exercise and redirect aggression to the development of social skills.

Pseudohyperactivity is becoming analogous with night starvation: to borrow George Dunea's words, a fearful illness, almost impossible to diagnose but surprisingly easy to cure. Just confiscate the orange squash. The "hyperactive" label is welcomed by parents who do not want to think they are incompetent or their child unlikeable; it also provides a peg on which to hang a change of discipline: no more orange squash and no more temper tantrums.

Genuine hyperactivity, though serious, is rare; pseudohyperactivity is epidemic. Dr T J David has been unable to replicate the results of Egger *et al* even when using greater doses of challenging materials.<sup>3</sup> He has described the damaging effects of elimination diets prescribed for eczematous children by "ecology" clinics.<sup>4</sup> Though most parents of such children are merely gullible, some have been suspected of Meadow's syndrome (Munchausen's by proxy), willingly submitting their children to dangerous dietary restrictions.<sup>5</sup>

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- Royal College of Physicians and British Nutrition Foundation. Food intolerance and food aversion. J R Coll Physicians Lond 1984;18:83-123.
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- 4 David TJ. The overworked or fraudulent diagnosis of food allergy and food intolerance in children. J R Soc Med 1985;78 (suppl 5):21-31.
- 5 Warner JO, Hathaway MA. The allergic basis of Meadow's syndrome. Arch Dis Childhood 1984;59:151-6.

#### Pseudo-obstruction

SIR,—Professor H A F Dudley and Dr S Paterson-Brown correctly emphasise the importance of pseudo-obstruction of the colon (3 May, p 1157). Patients with this condition are often generally unwell and tolerate an unnecessary laparotomy badly. Barium enema examination is not, however, foolproof in establishing the diagnosis as the following case shows.

A 76 year old man was admitted to another hospital with confusion, congestive cardiac failure, pneumonia, and hypoxaemia. His abdomen was distended with little tenderness and high pitched bowel sounds. Plain radiography showed multiple colonic fluid levels. Pseudo-obstruction of the colon was diagnosed. His cardiac and respiratory status improved a little, but his abdomen remained distended. Five days after admission a barium enema showed two constant strictures in the descending colon which failed to dilate with intravenous hyoscine butylbromide and were judged to be neoplastic. A blind defunctioning transverse colostomy was made because of his still extremely poor general state, and he went on to make a good recovery after five days of ventilation. At laparotomy a month later no obstructing lesion could be found in the colon or elsewhere. The colostomy was closed but he again became distended and five days after operation dehiscence of his abdomen occurred. Immediately after resuture he suffered a fatal cardiac arrest. Necropsy showed bronchopneumonia, a femoral vein thrombosis, pulmonary embolism, and severe coronary artery atheroma. No lesion was found in the gastrointestinal tract except for a sound and patent colostomy closure.

It is accepted that "blind" colostomy carries risks, and abdominal wound dehiscence nowadays indicates deficient technique. These points aside, barium enema gave misleading information in this case with the consequences described. The series of Koruth *et al*<sup>1</sup> and Stewart *et al*<sup>2</sup> both suggest total reliability for barium enema in this condition and neither contains any such "false picture." This case establishes that such false positive results can occur. Presumably the radiological appearance was due to spastic strictures which persisted for some time and possibly contributed to the proximal colonic distension.

As a further point it would seem likely that a tube caecostomy is "unsatisfactory and dangerous" when the caecum is gangrenous or ruptured. I would suggest, however, that it is good treatment in patients operated on for persistent caecal distension and tenderness in whom the caecum is found to be viable and non-perforated.

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- Koruth NM, Koruth A, Matheson NA. The place of contrast enema in the management of large bowel obstruction. *J R Coll* Surg Edinb 1985;30:258-60.
- 2 Stewart J, Finan PJ, Courtney DF. Does a water soluble contrast enema assist in the management of acute large bowel obstruction? A prospective study of 117 cases. Br J Surg 1984;71: 799-801.

SIR,—Professor H A F Dudley and Dr S Paterson-Brown criticise certain aspects of the management of pseudo-obstruction (3 May, p 1157) while commending others. They are quite rightly against unnecessary or inappropriate surgery, but some of these patients are indeed a diagnostic puzzle. The condition ranges from patients with what is really a painless colonic ileus to those with a painful functional obstruction. In certain patients in the latter group the emergency surgeon may be unhappy in treating them conservatively overnight to await a contrast enema the next day. As some will turn out to have a mechanical obstruction, surgery in this context cannot be condemned.

With regard to the investigation of patients suspected of having pseudo-obstruction, the authors fail to mention the need for sigmoidoscopy in those having a contrast enema.

Colonoscopy may be used to treat those patients with caecal distension, but even if this is initially successful the problem may recur.<sup>1</sup> This is not the case with tube caecostomy, although the authors find the procedure both unsatisfactory and dangerous. In this condition the tube acts as a safety valve for the caecum, allowing gas to escape. Provided the tube is regularly flushed with water to keep semisolid faeces from blocking it I have found it to work well.

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 Munro A, Youngston GG. Colonoscopy in the diagnosis and treatment of colonic pseudo-obstruction. *J R Coll Surg Edinb* 1983;28:391-3.

# Recognising cardiac arrest and providing basic life support

SIR,-We would like Dr Judith Fisher to clarify the recovery position. In her article (12 April, p 1002) a recovery position is shown with the victim lying semiprone with the top leg flexed and the bottom leg straight. There appears to be some confusion regarding this recovery position. Safar has said that "the stable side position for spontaneously breathing comatose patients is achieved by rolling the victim on his side, flexing his lower leg and placing his lower arm behind his back with the hand of the upper arm under his chin to keep the head tilted backwards." Zorab and Baskett have also shown the semiprone and lateral recovery positions with the top leg in the flexed position.<sup>2</sup> In view of these two conflicting positions of the lower limbs we would like the Resuscitation Council to clarify the recovery position.

In our opinion there is a need for two recovery positions, one for spontaneously breathing unconscious victims of trauma when the head is maintained in a neutral position, and the other reserved for patients in coma due to any other cause, when the head should be tilted back to achieve better airway clearance. Perhaps it is prudent to maintain a backward tilt of the head with the fist of the upper arm supporting the chin as shown in the photograph, rather than with the hand kept under the chin.

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1 Safar P. Cardiopulmonary cerebral resuscitation. London: W B Saunders, 1981.

2 Zorab J, Baskett P. Immediate care.London: W B Saunders, 1977.

AUTHOR'S REPLY,—The Resuscitation Council does not aim to produce rigid rules but rather to offer accurate guidelines in relation to current scientific research. The recovery position has recently been discussed at length in your columns (30 November, p 1158; 11 January, p 139; 8 February, p 408; 22 February, p 555; 8 March, p 695). Any position used for the unconscious but breathing casualty should: (a) minimise the movement of the patient; (b) keep the head, ncck, and

