attention to the tremendous advances, including the development of curative treatments, that have arisen as a result of having previously subjected patients to toxic experimental treatments.¹ But we should not forget that clinical oncology has seen many false dawns. Professor Hamblin documents the toxicity of interleukin 2 in considerable detail and draws attention to the views of some that such treatment would not seem to merit further application in the compassionate management of patients with cancer.

It is thus a little surprising to see the unqualified statements that "side effects are acceptable" and that patients should not be "deprived of effective treatment." Such phrases can be misleading without comment as to whom the side effects are acceptable and when they might be acceptable and on what is meant by "effective." To non-oncologists the phrase "complete response" can also be misleading as in most cases in which it is used, especially in the treatment of solid tumours, it merely indicates substantial but incomplete and temporary tumour regression, and what is often our inability to detect a thousand million or more residual drug resistant cancer cells.

Even if a third of patients have their lives prolonged by several months the therapeutic ratio in some will be low. The remaining two thirds of patients will experience toxicity and no benefit and might have found the "arms of alternative practitioners" more comfortable.

In an editorial on an experimental (and expensive) treatment it would have been worth saying that no patients should at present be treated with interleukin 2 outside a clinical trial, preferably a randomised controlled trial with evaluation of quality of life.

GARETH J G REES

Bristol Radiotherapy and Oncology Centre,
Bristol BS2 8ED

1 Hamblin TJ. Interleukin 2. *Br Med J* 1990;300:275-6. (3 February.)

SIR,—In his editorial concerning the treatment of some cancers with interleukin 2 Professor T J Hamblin describes some of the physical side effects that are suffered by most patients who are given the drug. These symptoms of malaise, fatigue, anorexia, and myalgia are identical with some of the physical symptoms experienced by most patients suffering from myalgic encephalomyelitis (the postviral fatigue syndrome).² Neuropsychiatric symptoms commonly encountered in patients with myalgic encephalomyelitis³ have also been described in patients being treated with interleukin 2.⁴

Interestingly a study from Charlotte, North Carolina,⁵ reported mean concentrations of interleukin 2 in 104 patients diagnosed as having myalgic encephalomyelitis⁶ that were about 40 times greater than those in 22 sex and age matched controls. Could the side effects of this newly emerging treatment for certain malignancies be providing a clue to the mystifying range of symptoms experienced by patients with myalgic encephalomyelitis at a time when there is much debate and argument as to the aetiology and pathogenesis of this disease?

ERIC BOOTH

Leeds LS17 7RT

- 1 Hamblin TJ. Interleukin 2. *Br Med J* 1990;300:275-6. (3 February.)
- 2 Behan PO, Behan WMH, Bell EJ. The postviral fatigue syndrome—an analysis of the findings in 50 cases. *J Infect* 1985;10:211-22.
- 3 Behan PO, Behan WMH. Postviral fatigue syndrome. *CRC Critical Reviews in Neurobiology* 1988;4:157-78.
- 4 Denicoff KD, Rubinow DR, Papa MZ, et al. The neuropsychiatric effects of treatment with interleukin 2 and lymphokine-activated killer cells. *Ann Intern Med* 1987;107:293-300.
- 5 Cheney PR, Dorman SE, Bell DS. Interleukin 2 and the chronic fatigue syndrome. *Ann Intern Med* 1989;110:321.

6 Holmes GP, Kaplan JE, Ganz NM, et al. Chronic fatigue syndrome: a working case definition. *Ann Intern Med* 1988; 108:387-9.

SIR,—We would like to make a comment about a point brought up in Professor T J Hamblin's excellent editorial on interleukin 2.¹ When treatment with continuous infusion of interleukin 2 is given hypotension responds quickly to stopping the infusion and the administration of fluid and dopamine are best avoided. Hypotension associated with treatment with interleukin 2 in bolus form is, however, more problematic; colloid and pressor agents should be used with extreme caution, and in the absence of pending cardiac or renal damage an expectant policy may be sufficient.

The large doses of intravenous interleukin 2 that are required to produce an antitumour effect are associated with systemic side effects. By administering interleukin 2 by other routes such side effects can be reduced even at high doses. Thus interleukin 2 has been administered locally to neoplastic deposits, intraperitoneally, and also through the splenic vein. In this hospital we have given interleukin 2 through the ileal lymphatic system and observed some partial responses in patients with end stage metastatic melanoma but no change in patients with non-Hodgkin's and Hodgkin's lymphoma. We observed symptoms of fatigue at doses of 4-5 × 10⁶ units per day, but there was no capillary leak or hypotension. This treatment produced the lymphopenia associated with intravenous interleukin 2 and rebound lymphocytosis that occurs on stopping interleukin 2. During and after endolymphatic administration of interleukin 2 lymphokine activated killer cell activity was increased and lymphocytes were particularly sensitive to the effects of interleukin 2 in vitro. We therefore suggest that this novel administration of interleukin 2 can produce antitumour effects without major side effects.

DAVID W GALVANI
ROBERT A SELLS

Royal Liverpool Hospital,
Liverpool L69 3BX

1 Hamblin TJ. Interleukin 2. *Br Med J* 1990;300:275-6. (3 February.)

Advanced rectal cancer

SIR,—In his leading article Professor J Alexander-Williams suggests two methods for the palliation of advanced rectal cancer.¹ As he points out, effective palliation can be achieved by transanal diathermy loop excision or neodymium-yttrium aluminium garnet (Nd-YAG) laser ablation. Based on our experience with palliating oesophagogastric carcinoma we suggest that there may be an equally effective but much cheaper option.

Several treatments have been considered for advanced rectal cancer,^{2,3} each having disadvantages in terms of results or morbidity or cost. The ideal palliative technique should be quick, safe, and painless; need only a short inpatient stay; and have a low complication rate.³ One way by which good palliation may be achieved in a district hospital without the need for expensive equipment or extensively trained staff is by endoscopic injection of ethanol directly into tumour, thereby causing tumour necrosis.⁴ This technique is successful in the palliation of oesophageal tumours, giving results equivalent to those of laser ablation. Use of ethanol to induce tumour necrosis may also be appropriate for the palliation of advanced rectal carcinoma, particularly in patients with luminal obstruction, continuous mucous discharge, or bleeding.

In this technique the tumour is visualised by using a fiberoptic endoscope, and aliquots of 0.5 ml of dehydrated alcohol are injected through a vari-

ceal injector needle directly into the growth. Injections are continued until all visible (or accessible) tumour has been treated. This technique would also be suitable for small tumours in patients who are unfit for surgery because of concurrent disease and in elderly patients. The procedure can be repeated as required.

One example of a case in which we used the technique is that of a 78 year old woman with a large rectal carcinoma and liver metastases who had undergone a defunctioning colostomy. She had a continuous offensive mucous discharge per rectum. At endoscopy as an outpatient 15 ml of dehydrated alcohol was injected into all of the visible tumour. The mucous discharge stopped within 48 hours, giving complete relief of symptoms, which was maintained until her death three weeks later.

JASON PAYNE-JAMES GEORGE MISIEWICZ
JOHN ROGERS DUNCAN LOFT
DAVID SILK

Department of Gastroenterology and Nutrition,
Central Middlesex Hospital,
London NW10 7NS

- 1 Alexander-Williams J. Advanced rectal cancer. *Br Med J* 1990; 300:276-7. (3 February.)
- 2 Hennessy TPJ. Choice of treatment in carcinoma of the oesophagus. *Br J Surg* 1988;75:193-4.
- 3 Cox J, Bennett JR. Light at the end of the tunnel? Palliation of oesophageal carcinoma. *Gut* 1987;28:781-5.
- 4 Payne-James JJ, Spiller RC, Misiewicz JJ, Silk DBA. Use of ethanol-induced tumor necrosis (ETN) to palliate dysphagia in patients with esophagogastric cancer. *Gastrointest Endosc* (in press).

Doctors and medical negligence

SIR,—Writing with careful moderation, Dr J D J Havard¹ has been the first person seriously to address the subject of the difficulties likely to arise from the imposition of crown indemnity. He correctly names the likelihood of settlement without just cause, the effects on the funding of health districts, and the lack of legal experience in district and regional management, and he points to the fragility of the safeguards for the interests of doctors. He makes long overdue proposals for reducing risk and improving the quality of communication between patients and doctors.

Writing with far less moderation but perhaps with longer and deeper experience of the subject than that of Dr Havard, I wish to warn the public and the profession about the dangers inherent in the arrangements set out in the Department of Health's new circular² and its annex.

Patients confronted by the state's limitless capacity for obfuscation and prevarication are likely to find it harder than ever to pursue claims—large claims at any rate—to a satisfactory conclusion. Doctors are likely to have their views disregarded or not sought at all. They have certainly lost any right to independent representation. My own experience confirms that health authorities have hardly waited for the publication of the circular to take the conduct of affairs in current cases out of the hands of the defence organisations. Consultants have lost their ultimate deterrent in their dealings with health authorities in matters concerning the safety of patients. Nowhere in the circular or its annex is there any mention of the principle of consultant responsibility: it is likely that health authorities will deal with cases concerning juniors without any reference to the professionally responsible consultants. Some doctors, freed from the fear of financial penalty for malpractice, may adopt standards of care and responsibility that are less than acceptable. Health authorities, and in particular the governing bodies of newly independent hospitals, confronted by the intermittent necessity to find large, unbudgeted capital sums, are likely to delay and prevaricate or to impose cuts on services to patients. The position of the junior doctor who